



SSQ

STRATEGIC STUDIES QUARTERLY

SUMMER 2015

VOL. 9, NO. 2

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STRATEGIC STUDIES QUARTERLY

*An Air Force-Sponsored Strategic Forum on
National and International Security*

VOLUME 9

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A Call to the Future

The New Air Force Strategic Framework

America's Airmen are amazing. Even after more than two decades of nonstop combat operations, they continue to rise to every challenge put before them. I wish I could say that things are about to get easier, but I cannot, because the dominant trends point to a complex future that will challenge us in new and demanding ways. Adversaries are emerging in all shapes and sizes, and the pace of technological and societal change is increasing—with a corresponding increase in the demand for air, space, and cyber power. In this context, senior United States Air Force (USAF) leaders realize we need a single, integrated strategy to focus the way our service organizes, trains, and equips the force to conduct future operations. We need a strategy that points the way forward and does not limit us to an intractable view of the future—one that is actionable, with clear goals and vectors that are implementable, assessable, and revisable. This article describes that strategy—the new USAF strategic framework for strategy-driven resourcing.

Intellectual Preparation

In a 2014 *Air and Space Power Journal* article, I explained how Airmen contribute to the nation's defense by providing global vigilance, global reach, and global power for America.¹ The article introduced two key documents: *The World's Greatest Air Force: Powered by Airmen, Fueled by Innovation*, and *Global Vigilance, Global Reach, Global Power for America*. For the USAF, these documents represent an aspirational future, assert the enduring importance of airpower, and define our core missions. These key documents represent the beginning of what I expect will be the reinvigoration of USAF strategic thought for the coming decades.

For the next step in this journey, I want to discuss the USAF's new strategic framework that will guide us as we move forward. We have recently released two important documents in our strategic document series—*America's Air Force: A Call to the Future*, which is the USAF's strategic vision, and the *USAF Strategic Master Plan (SMP)*, which translates that conceptual strategy into comprehensive guidance, goals, and

¹ This article courtesy of *Air and Space Power Journal* 29, no. 3 (May–June 2015): 4–10.

objectives.² Together, these documents lead the Strategy, Planning, and Programming Process (SP3) that will arm and empower the USAF, in collaboration with our partners, to defeat adversaries and to defend the nation and our allies in a complex future. Additionally, an upcoming *Air Force Future Operating Concept* will add to the document series by describing how we will operate in the future and how new capabilities will fit together.

America's Air Force: A Call to the Future

The Air Force's ability to continue to adapt and respond faster than our potential adversaries is the greatest challenge we face over the next 30 years.

—*America's Air Force: A Call to the Future* (2014)

A Call to the Future provides the long-term imperatives and vectors for our service to ensure it is able to execute our core missions over the next several decades and is the lead document in our strategic document series. It builds upon “who we are” and “what we do” and provides a path to “where we need to go.”³ That path is strategic in nature and extends beyond the budget horizon to ensure our USAF meets the nation's defense needs over the next 30 years. *A Call to the Future* is the natural companion to *The World's Greatest Air Force: Powered by Airmen, Fueled by Innovation*, since the two together provide the broad vision of the USAF.

Strategic Context and Challenge

Understanding that we cannot “see” into the future, four emerging trends provide a strategic context for the strategy. The USAF will need to win in complex battlespaces characterized by rapidly changing technological breakthroughs, geopolitical instability, a wide range of operating environments, and an increasingly important and vulnerable global commons. These trends will shape the operational environment and highlight the broader strategic issues for national defense.

Speed is a common thread among these trends. As *A Call to the Future* states, “We must commit to changing those things that stand between us and our ability to rapidly adapt.”⁴ Faster adaptation and re-

sponse—what I call strategic agility—will sustain the USAF's unique contributions that are critical to the nation. Our challenge is to develop and nurture a future USAF that will excel in solving national security problems and that is appropriate for the rapid pace of change occurring throughout the world.

The Air Force We Need

A Call to the Future emphasizes two strategic imperatives—agility and inclusiveness—to position the USAF for success in the coming decades.⁵ Agility is the counterweight to the uncertainty of the future and its associated rate of change. More than a slogan, agility is a call for significant, measurable steps to enhance our ability to wield innovative concepts and advanced capabilities in unfamiliar, dynamic situations. By embracing strategic agility, the USAF will be able to move past the twentieth century's industrial-era processes and paradigms and be ready for the globally connected, information-based world of the coming decades. We will become more agile in the ways we cultivate and educate Airmen and in how we develop and acquire capabilities. Our operational training, employment, organizational structures, and personnel interactions must also become more agile.

Inclusiveness recognizes that “none of us is as smart as all of us.” The ability to harness diversity of thought within our Airmen and our partners is the key to developing a truly agile force because it ensures we are leveraging the broadest set of resources to produce the maximum number of options. To do this, we will focus on improving the structure of the USAF team, evolving our culture to address emerging challenges, and strengthening our connections both external and internal to the service.

Strategic Vectors for the Future

A Call to the Future lays out five strategic vectors along which the USAF will posture for the future, focus investments, implement institutional changes, and develop employment concepts.⁶

- *Provide effective twenty-first-century deterrence.* The nuclear mission remains the clear priority, and the USAF will continue to ensure we have the capabilities necessary to sustain a credible ground-based

and airborne nuclear deterrent. In addition, the USAF must pursue a suite of options to deter a wide range of actors.

- *Maintain a robust and flexible global integrated intelligence, surveillance, and reconnaissance (ISR) capability.* To counter growing threats and meet expanding requirements, the USAF will employ a robust and diverse network of sensors arrayed across the air, space, and cyber domains. ISR will become more timely, efficient, flexible, and effective; it will also be a robust and survivable force multiplier for operators.
- *Ensure a full-spectrum-capable, high-end-focused force.* The USAF must focus on capabilities that enable freedom of maneuver and decisive action in highly contested spaces. However, we must retain the skills and capabilities to succeed in conflict across the spectrum of intensity and range of military operations.
- *Pursue a multidomain approach to our five core missions.* Full integration of the air, space, and cyberspace domains is the next leap in the evolution of our service. Future Airmen will intuitively address problems with a multidomain mind-set.
- *Continue the pursuit of game-changing technologies.* The USAF must maintain a technological edge over our adversaries by shrewdly seeking out, developing, and mastering cutting-edge technologies—wherever and whenever they emerge.

To Organize, Train, and Equip

A Call to the Future does not constitute an *airpower* employment strategy. It is a strategy that transcends multiple domains. The USAF strategy is also *not* a road map focused solely on next year's budget or a "stay the course" mentality. These matters, important as they may be in the short term, are not critical to the institutional USAF three decades from now. The strategy is about becoming more agile and adaptive. It is a framework to guide acquisition, science and technology, human capital, and other investments. It is also a broad strategic path for the next 30 years coupled with the recognition of an evolving environment that demands a new approach by the USAF.

The Plan

The recently released *Strategic Master Plan (SMP)* describes what we will do to implement the USAF's strategic imperatives and vectors, making them reality. It translates strategic vision into action by providing authoritative direction for service-wide planning and prioritization. The *SMP* includes four annexes—"Human Capital," "Strategic Posture," "Capabilities," and "Science and Technology"—that provide more specific guidance and direction, further aligning the *SMP*'s goals and objectives to future resource decisions. Certain sections will remain classified to ensure critical elements of the future force stay linked to the overall strategy. However, most of the *SMP* remains unclassified to ensure wide distribution and unambiguous direction for the USAF. An ambitious and far-reaching undertaking, the base *SMP* will be updated every two years, with the annexes reviewed annually, to ensure a consistent and relevant connection between today's realities and tomorrow's potential.

Converting *Conceptual Strategy* into *Programmatic Reality*

The SP3 places strategy at the head of the programming and budgeting process. Without the SP3, the strategy and *SMP* are merely words on paper. The SP3 connects the strategic document series to day-to-day operations and is the strategic roadmap. The process translates strategy into programs and capabilities that are budgeted and funded—and then become reality. This iterative process ensures strategy and plans serve as the overarching framework for program development in a repeatable manner. It will also provide a unified, understandable, and consistent USAF message, clearly linked to strategic guidance—one that senior leaders can focus on to provide direction.

The USAF strategy and the *SMP* provide authoritative guidance to key planners across the Air Staff and major commands. These planners will align their supporting plans with the goals and objectives of the *SMP* as they apply their expertise to inform planning and resourcing. In particular, core function leads will produce core function support plans that further refine resource planning in support of national security and the joint force.⁷ Other USAF flight plans will address issues that are not fully covered by the core function support plans. These flight plans will provide additional guidance and specific direction for crosscutting issues and other functional areas throughout the USAF. Together, these plans create a constellation of supporting and directive documents to

ensure the strategy becomes reality. The SP3's integration process enables USAF senior leaders to make critical planning choices based on a comprehensive, unified portfolio of priorities, risks, and capabilities.

In this more robust strategy-driven environment, commanders and staffs will have proper direction and the necessary authority to reach goals by working discrete but connected actions. The guidance and direction in the *SMP* are designed to enable better enterprise-wide solutions to challenges and close the gaps that can form in execution. Those ideas and concepts that are not linked to SP3 or are not relevant will be easily identifiable; thus, they can be terminated to make room for new ideas and initiatives. The greater USAF enterprise will remain engaged and current, ready to resource and execute required programs to make progress on our strategic goals. Previously disconnected, these actions maintain vertical and lateral links across the force—epitomizing the balance of centralized control with decentralized execution.


A Concept of Operations for the Future

This summer, we plan to release a new *Air Force Future Operating Concept* that will further inform strategic planning by describing how Airmen will operate the capabilities wielded by the future USAF and how those capabilities will fit together. A natural companion for *A Call to the Future*, this document will provide an innovative portrayal of how an agile, multidomain USAF will operate in 20 years' time. It will describe future capabilities in broad terms and how these capabilities will fit into the future environment. The concept will depict a desired future USAF that is the product of two decades of successful evolution in strategy-informed planning and resourcing; furthermore, it will serve as a baseline for continued concept development, experimentation, and refinement.

Whether you are a USAF leader, joint operator, government partner, or trusted ally, the *Future Operating Concept* will help articulate what role Airmen will assume in the future defense of the United States. It will frame the strategic picture of the USAF and coalesce the imperatives, vectors, and goals present in *A Call to the Future* and instituted by the *SMP*.

A Call to Action

Because strategy is not prescient, we must be adaptive as we seek to balance the present with the future. Some key decisions that will have lasting effects long into the future must be made now. We will make those decisions by connecting new concepts and plans to the strategic framework. To the operator in the field, it may be difficult to find your direct connection to the entire SP3 process—such a long-range strategy may seem divorced from today's reality. However, you are connected; our future will be built on your skills, experiences, and insights. I am confident in you, and I trust your judgment. We will continue to organize, train, and equip you to win today's fights while we evolve to confront tomorrow's challenges. That is why we have created a broad strategic framework, which includes mission, vision, and strategic context, to answer our nation's call.

To all readers, I leave you with closing thoughts from *The World's Greatest Air Force: Powered by Airmen, Fueled by Innovation*: "The United States Air Force is a remarkable success story! Our history may be short, but our heritage is legendary. We truly stand on the shoulders of heroes. Those heroes expect us to make this Air Force even better. To do that, each of us must find new ways to win the fight, strengthen the team, and shape the future. Every Airman, every day, can make a difference—be that Airman!"⁸ 

Gen Mark A. Welsh III
Chief of Staff
United States Air Force

Notes

1. Mark A. Welsh III, "Global Vigilance, Global Reach, Global Power for America," *Air and Space Power Journal* 28, no. 2 (March–April 2014): 4–10, <http://www.airpower.maxwell.af.mil/digital/pdf/articles/2014-Mar-Apr/SLP-Welsh.pdf>.

2. Headquarters US Air Force (HQ USAF), *America's Air Force: A Call to the Future* (Washington, DC: HQ USAF, July 2014), http://airman.dodlive.mil/files/2014/07/AF_30_Year_Strategy_2.pdf; and recently published *Strategic Master Plan*.

3. HQ USAF, *The World's Greatest Air Force: Powered by Airmen, Fueled by Innovation—A Vision for the United States Air Force* (Washington, DC: HQ USAF, January 2013), <http://www.osi.af.mil/shared/media/document/AFD-130111-016.pdf>; and HQ USAF, *Global Vigi-*

lance, Global Reach, Global Power for America (Washington, DC: HQ USAF, n.d.), http://www.af.mil/Portals/1/images/airpower/GV_GR_GP_300DPI.pdf.

4. HQ USAF, *America's Air Force*, 8.

5. *Ibid.*, 9–13.

6. *Ibid.*, 14–19.

7. Core functions refer to the USAF's 12 service core functions: Agile Combat Support, Air Superiority, Building Partnerships, Command and Control, Cyberspace Superiority, Global Integrated ISR, Global Precision Attack, Nuclear Deterrence Operations, Personal Recovery, Rapid Global Mobility, Space Superiority, and Special Operations. Core function leads are major commands designated to lead each of the core functions, which is captured in core function support plans.

8. HQ USAF, *World's Greatest Air Force*, 4.

Chinese Military Modernization

Implications for Strategic Nuclear Arms Control

China's political and military objectives in Asia and worldwide differ from those of the United States and Russia, reflecting a perception of that nation's own interests and of its anticipated role in the emerging world order.¹ Its growing portfolio of smart capabilities and modernized platforms includes stealth aircraft, antisatellite warfare systems, quiet submarines, "brilliant" torpedo mines, improved cruise missiles, and the potential for disrupting financial markets. Among other indicators, China's already deployed and future Type 094 *Jin*-class nuclear ballistic missile submarines (SSBN), once they are equipped as planned with JL-2 submarine launched ballistic missiles, will for the first time enable Chinese SSBNs to target parts of the United States from locations near the Chinese coast. Along with this, China's fleet of nuclear-powered attack submarines supports an ambitious anti-access/area denial (A2/AD) strategy to deter US military intervention to support allied interests in Asia against Chinese wishes.² China's diplomacy creates additional space for maneuver between Russian and American perceptions. While China may lack the commitment to arms control transparency, the nation's current and future military modernization entitles Beijing to participate in future Russian-American strategic nuclear arms control talks.

Entering China into the US-Russian nuclear-deterrence equation creates considerable analytical challenges, for a number of reasons. To understand these challenges one must consider the impact of China's military modernization, which creates two follow-on challenges: escalation control and nuclear signaling.

Military Modernization

China's military modernization is going to change the distribution of power in Asia, including the distribution of nuclear and missile forces. This modernization draws not only on indigenous military culture but also on careful analysis of Western and other experiences. As David Lai has noted, "The Chinese way of war places a strong emphasis on the use of strategy, stratagems, and deception. However, the Chinese understand that their approach will not be effective without the backing of

hard military power. China's grand strategy is to take the next 30 years to complete China's modernization mission, which is expected to turn China into a true great power by that time."³

Chinese military modernization and defense guidance for the use of nuclear and other missile forces hold some important implications for US policy. First, Chinese thinking is apparently quite nuanced about the deterrent and defense uses for nuclear weapons. Despite the accomplishments of modernization thus far, Chinese leaders are aware that their forces are far from nuclear-strategic parity with the United States or Russia. Conversely, China may not aspire to this model of nuclear-strategic parity, such as between major nuclear powers, as the key to war avoidance by deterrence or other means. China may prefer to see nuclear weapons as one option among a spectrum of choices available in deterring or fighting wars under exigent conditions and as a means of supporting assertive diplomacy and conventional operations when necessary. Nuclear-strategic parity, as measured by quantitative indicators of relative strength, may be less important to China than the qualitative use of nuclear and other means as part of broader diplomatic-military strategies.⁴

Second, China is expanding its portfolio of military preparedness not only in platforms and weapons but also in the realms of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) and information technology. Having observed the US success in Operation Desert Storm against Iraq in 1991, Chinese military strategists concluded that the informatization of warfare under all conditions would be a predicate to future deterrence and defense operations.⁵ As Paul Bracken has noted, the composite effect of China's developments is to make its military more agile—meaning, more rapidly adaptive and flexible.⁶ The emphasis on agility instead of brute force reinforces traditional Chinese military thinking. Since Sun Tzu, the acme of skill has been winning without fighting, but if war is unavoidable, delivering the first and decisive blows is essential. This thinking also stipulates that one should attack the enemy's strategy and his alliances, making maximum use of deception and basing such attacks on superior intelligence and estimation. The combination of improved platforms and command-control and information warfare should provide options for the selective use of precision fire strikes and cyberattacks against pri-

ority targets while avoiding mass killing and fruitless attacks on enemy strongholds.⁷

Escalation Control

Another characteristic of the Chinese military modernization that is important for nuclear deterrence and arms control in Asia is the problem of escalation control. Two examples or aspects of this problem might be cited here. First, improving Chinese capabilities for nuclear deterrence and for conventional warfighting increases Chinese leaders' confidence in their ability to carry out an A2/AD strategy against the United States or another power seeking to block Chinese expansion in Asia. This confidence might be misplaced in the case of the United States. The United States is engaged in a "pivot" in its military-strategic planning and deployment to Asia and, toward that end, is developing US doctrine and supporting force structure for "AirSea Battle" countermeasures against Chinese A2/AD strategy.⁸

Another problem of escalation control is the question of nuclear crisis management between a more muscular China and its Asian neighbors or others. During the Cold War era, Asia was a comparative nuclear weapons backwater, since the attention of US and allied North Atlantic Treaty Organization policy makers and military strategists was focused on the US-Soviet arms race. However, the world of the twenty-first century is very different. Europe, notwithstanding recent contretemps in Ukraine, is a relatively pacified security zone compared to the Middle East or to South and East Asia, and post-Cold War Asia is marked by five nuclear weapons states: Russia, China, India, Pakistan, and North Korea. The possibility of a nuclear weapon use, growing out of a conventional war between India and Pakistan or China and India, is nontrivial, and North Korea poses a continuing uncertainty of two sorts. This latter nation might start a conventional war on the Korean peninsula, or the Kim Jung-un regime might implode, leaving uncertain the command and control over the nation's armed forces, including nuclear weapons and infrastructure.⁹

The problem of keeping nuclear-armed states below the threshold of first use or containing escalation afterward was difficult enough to explain within the more simplified Cold War context. Uncertainties would be even more abundant with respect to escalation control in the

aftermath of a regional Asian war. There is also the possibility of a US-Chinese nuclear incident at sea or a clash over Taiwan escalating into conventional conflict, accompanied by political misunderstanding and the readying of nuclear forces as a measure of deterrence. The point is US and Chinese forces would not actually have to fire nuclear weapons to use them. Nuclear weapons would be involved in the conflict from the outset, as offstage reminders that the two states could stumble into a mutually unintended process of escalation.

An important correction or cautionary note must be introduced at this point. Policy makers and strategists have sometimes talked as if nuclear weapons always serve to dampen escalation instead of exacerbating it. This might be a valid theoretical perspective under normal peacetime conditions. However, once a crisis begins—and especially after shooting has started—the other face of nuclear danger will appear. Thereafter, reassurance based on the assumption that nuclear first use is unthinkable may give way to such an attack becoming very thinkable. As Michael S. Chase has warned, miscalculation in the middle of a crisis is a “particularly troubling possibility,” heightened by uncertainty about messages the sides are sending to one another and/or leaders’ overconfidence in their ability to control escalation.¹⁰

The “Thucydides Trap” and Nuclear Signaling

Chinese decisions about nuclear force modernization will not take place in a political vacuum. One important issue for US-Chinese strategic planning is whether China and the United States will allow their political relations to fall into the “Thucydides trap,” which refers to the relationship between a currently leading or hegemonic military power and a rising challenger—as in the competition between a dominant Athens and a rising Sparta preceding the Peloponnesian War.¹¹ The Thucydides trap occurs when a leading and rising power sees their competition as a zero-sum game in which any gain for one side automatically results in a commensurate loss in power or prestige for the other side. It is neither necessary nor obvious that US-Chinese diplomatic-strategic behavior be driven to this end. However, China’s challenges in Asia against US or allied Pacific interests might provoke a regional dispute with the potential to escalate into a more dangerous US-Chinese confrontation, including resort to nuclear deterrence or threats of nuclear first use.

Even if both Washington and Beijing avoid the Thucydides trap, China has the option of *using* nuclear weapons for diplomatic or strategic objectives short of war or explicit nuclear threats. We miss important possibilities for the political exploitation of nuclear weapons if we confine our analysis of China's options to threats or acts of nuclear first use or first strike. The following list includes some of the ways China might signal nuclear weapons use to support its foreign policy in possible confrontations with the United States or US Asian allies:

- Nuclear tests during a political crisis or confrontation
- Military maneuvers with nuclear-capable missile submarines or naval surface forces
- Generated alert for air defense forces to reinforce declaration of an expanded air defense identification zone closed to all foreign traffic
- Open acknowledgment of hitherto unannounced—and undetected by foreign intelligence—long- and intermediate-range missiles based underground in tunnels on moveable or mobile launchers
- Adoption of a launch-on-warning policy in case of apparent enemy preparations for nuclear first use
- Cyberattacks against military and critical infrastructure targets in the United States or against a US ally, including important military and command-control networks in Asia, preceded or accompanied by movement of forces to improve first-strike survivability against conventional or nuclear attack
- Relocation of People's Liberation Army Second Artillery command centers to more protected sites
- Preparation for antisatellite launches against US or other satellites in low earth orbit
- Mobilization of reserves for military units that are nuclear capable
- Shake-up of the chain of command for political or military control of nuclear forces or force components

None of the preceding activities would necessarily be accompanied by explicit threats of nuclear first use or retaliation. Chinese political and military leaders would expect US intelligence to notice the actions and hope for US forbearance. China's expectation might include either a

willingness to settle a disagreement based on the status quo or on some newly acceptable terms. Creative analysts or experienced military and intelligence professionals could expand the preceding list; it is neither exhaustive nor definitive of China's options for nuclear-related signaling.

Contrary to some expert opinion, the relationship between China's ability to exploit its nuclear arsenal for political or military-deterrent purposes and China's apparent expertise in cyberwar deserves closer scrutiny. It is true nuclear war and cyberwar inhabit separate universes in terms of organization, mission, and technology. Moreover, the consequences of a nuclear war would certainly be more destructive than any cyberwar fought between the same states or coalitions. In addition, deterrence seems easier to apply as a concept to nuclear war, compared to cyberwar. Among other reasons, the problem of attribution in the case of a nuclear attack is simple compared to the case of a cyberattack.¹²


Notwithstanding the preceding caveats, in the information age it is likely that cyber and nuclear worlds will have overlapping concerns and some mutually supporting technologies. For the foreseeable future, nuclear-strategic command and control, communications, reconnaissance and surveillance, and warning systems—unlike those of the Cold War—will be dependent upon the fault tolerance and fidelity of information networks, hardware and software, and security firewalls and encryption. Therefore, these systems and their supporting infrastructures are candidate targets in any enemy version of the US Nuclear Response Plan (formerly Single Integrated Operational Plan). In thinking about this nuclear and cyber nexus, it becomes useful to distinguish between a state's planning for a preventive versus a preemptive attack.

During the Cold War, most of the nuclear-deterrence literature was focused on the problem of nuclear preemption, in which a first-strike nuclear attack would be taken under the assumption that the opponent had already launched its nuclear forces or had made a decision to do so. On the other hand, preventive nuclear war was defined as a premeditated decision by one state to weaken a probable future enemy before that second state could pose an unacceptable threat of attack. Most Cold War political leaders and their military advisors rightly regarded preventive nuclear war as an ethically unacceptable and strategically dysfunctional option.¹³

In a world in which the day-to-day functioning of military forces and civil society is now dependent upon the Internet and connectiv-

ity, the option of a preventive war with two phases now presents itself to nuclear-armed states. In the first phase, selective cyberattacks might disable key parts of the opponent's nuclear response program—especially nuclear-related C4ISR. In the second phase, a nuclear threat of first use or first strike might follow against an enemy partially crippled in its ability to analyze its response options or to order those responses into prompt effect. If this scenario seems improbable in the context of large states like the United States, Russia, and China because of their force and command-control diversity and protection, consider how it might work in the context of confrontations between smaller nuclear-armed states, including hypothetical future India-Pakistan or Israel-Iran showdowns.¹⁴ Even in the cases of US conflict with China or Russia (or between China and Russia), nuclear crisis management would certainly include preparation for possible cyberattacks preceding or accompanying nuclear first use or first strike.

Conclusion

China is a possible but not inevitable partner for the United States and Russia if the latter nations are to go forward with post-New START strategic nuclear arms reductions. China's military modernization and economic capacity create the potential for that nation to deploy within this decade or soon thereafter a "more than minimum" deterrent sufficient to guarantee unacceptable retaliation against any attack—especially if China's less-than-intercontinental-range forces are taken into account. Chinese missiles and aircraft of various ranges can inflict damage on Russian territory and on US-related targets in Asia, including US allies and bases. Nevertheless, an open-ended Chinese nuclear modernization in search of nuclear-strategic parity or superiority compared to the United States and Russia is improbable and, from the Chinese perspective, pointless. From a broader diplomatic and military perspective, it appears the time has arrived for a triangular relationship instead of a two-sided dialogue on strategic nuclear arms reductions or limitations. 

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Notes

1. See Bernard D. Cole, "Island Chains and Naval Classics," *Proceedings Magazine* 140, no. 11 (November 2014): 68–73.
2. Jeremy Page, "Deep Threat: China's Submarines Add Nuclear-Strike Capability, Altering Strategic Balance," *Wall Street Journal*, 24 October 2014, <http://online.wsj.com/articles/chinas-submarine-fleet-adds-nuclear-strike-capability-altering-strategic-balance-under-sea-1414164738>.
3. David Lai, "The Agony of Learning: The PLA's Transformation in Military Affairs," in *Learning by Doing: The PLA Trains at Home and Abroad*, ed. Roy Kamphausen, David Lai, and Travis Tanner (Carlisle, PA: Strategic Studies Institute, US Army War College, November 2012), 369.
4. See United States-China Economic and Security Review Commission, *Dr. Mark B. Schneider, Testimony before the U.S.-China Economic and Security Review Commission, Hearing on Developments in China's Cyber and Nuclear Capabilities*, 26 March 2012, <http://www.uscc.gov/sites/default/files/3.26.12schneider.pdf>.
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Moral and Political Necessities for Nuclear Disarmament

An Applied Ethical Analysis

Thomas E. Doyle II

Abstract

In the preparatory meetings for the 2015 Review Conference (Rev-Con) of the Nuclear Nonproliferation Treaty (NPT), the nuclear abolition or disarmament movement has urgently reiterated the demand that nuclear-weapon states (NWS) must live up to their Article VI commitments as defined by the 1995 and 2000 RevCons' final reports.¹ Increasingly, this demand is predicated on a *humanitarian imperative* to prevent the horrific effects of nuclear war or nuclear-weapon accident.² The term *humanitarian imperative* is the most recent expression of a long-standing moral demand by the global antinuclear movement that the human and environmental suffering resulting from nuclear war or accident constitutes a supreme moral evil and, perhaps, a supreme moral emergency.³ The NWS have resolutely resisted this demand, in part because they fear the effects of instability and insecurity that might result from nuclear abolition.⁴ Indeed, the results from all of the NPT RevCons have demonstrated that the demand for nuclear abolition has failed to pressure the NPT NWS to act beyond strategically and politically prudent nuclear arms reductions. Moreover, some of the NPT NWS have initiated nuclear-weapons modernization projects, which indicate their sustained commitment to nuclear deterrence for the indefinite future.⁵

The current political contest between antinuclear global civil-society groups and the NPT NWS raises two focal questions. First, assuming nuclear disarmament is truly a humanitarian and moral imperative, what are the policy preconditions for effective implementation? The academic and policy literature offers a variety of answers to this question that is important to review. A second and more important question is

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to what degree do such policies ensnare the NPT NWS in unanticipated violations of international ethical imperatives? In particular, is it possible to undertake nuclear abolition in a morally responsible manner if at least one ethical imperative is genuinely violated in the very effort to realize it?

This article begins with preliminary remarks on the latest efforts by some global civil-society groups to reframe nuclear abolition as a humanitarian imperative. It then argues that nuclear disarmament is not likely to happen merely because of the concerted expressions of moral demand by moral entrepreneurs and global civil-society groups. This is not to say that moral pressures from such groups are not necessary. On the contrary, the NPT NWS are not likely to reconsider their nuclear options without such pressures. Rather, the demand must be conjoined to a series of political interactions among rival NWS that resolve, transcend, or significantly mitigate their security, status, and trust dilemmas. In other words, the morally required end of nuclear abolition might tragically ensnare nuclear-armed rivals in a range of moral and political dilemmas that might involve significant instances of moral violation. If this paradoxical outcome is realized, then the paramount question for all involved is how to satisfy the moral imperative of nuclear abolition in ways that are not morally irresponsible.



Nuclear Disarmament as a Humanitarian Imperative

On the sixty-ninth anniversary of the atomic bombing of Hiroshima, 6 August 2014, the International Federation of Red Cross and Red Crescent Societies (IFRC) and International Committee of the Red Cross (ICRC) released a joint statement titled “Remembering Hiroshima: Nuclear Disarmament is a Humanitarian Imperative.”⁶ This statement reiterated resolutions agreed upon by the Council of Delegates of the International Red Cross and Red Crescent Movement in 2011, which expressed deep concern “about the destructive power of nuclear weapons, the unspeakable human suffering they cause, the difficulty of controlling their effects in space and time, the threat they pose to the environment and to future generations and the risks of escalation they create.” It also appealed to states to ensure that nuclear weapons are never used again and to pursue negotiations that prohibit and completely elimi-

nate nuclear weapons based on existing commitments and international obligations.⁷ This expressed a long-standing concern of the global anti-nuclear movement, namely that nuclear war or other large-scale nuclear accidents inherently constitute a grave moral evil for humankind.⁸

Several other global civil-society figures and groups were subsequently motivated to echo this statement, including Nobel Peace Prize laureate Desmond Tutu. In a recent publication of the International Campaign to Abolish Nuclear Weapons (ICAN), Tutu echoed the moral call for nuclear abolition and addressed what he believes to be the central and most stubborn question of today: why NWS need nuclear weapons. His answer was twofold: 1) Cold War inertia and 2) a stubborn attachment to the threat of brute force to assert the primacy of some states over others.⁹ For Tutu, these two answers fall short of genuine military or moral necessity. Rather, the answers suggest, as United Nations general secretary Ban Ki-Moon stated, “There are no right hands for wrong weapons.”¹⁰ Recalling the anti-apartheid campaign he helped start and lead, Tutu called for measures to repeal the apartheid-like Nonproliferation Treaty regime and to ban nuclear weapons altogether. To do this, he called for an irrepressible groundswell of popular opposition along with intense and sustained pressures from non-nuclear-weapon states (NNWS): “By stigmatizing the bomb—as well as those who possess it—we can build tremendous pressure for disarmament.”¹¹

Of course, the ICRC, IFRC, and ICAN demand is reiterated in the context of an international nuclear order in which the likelihood of nuclear abolition appears remote. As several scholars and policy experts have argued, the last seven decades have comprised the longest period of great power peace in modern history, and it seems no accident that such a peace corresponds to the period of great power nuclear deterrence. Even so, the ICRC, IFRC, and ICAN statements seem to reaffirm the antinuclear community’s continued belief in the argument made by Lawrence Wittner that the foremost political precondition for nuclear abolition is a sustained, determined, and organized global civil-society movement that will not take “no” for an answer.¹² Yet, even Wittner suggests that a global antinuclear movement might not be able to overcome all the political obstacles to reach a complete nuclear abolition. If such pessimism is correct, then one needs an account of the other preconditions that would be necessary or sufficient. Such preconditions have already been suggested in the *Final Report of the 2000 NPT Review*

Conference, such as the effective establishment of a comprehensive nuclear-test-ban treaty (CTBT), a fissile materials cut-off treaty (FMCT), establishment of a nuclear abolition committee within the Conference on Disarmament, and continued nuclear arms reductions that can be reliably verified.¹³

However, the NPT NWS appear as reluctant to move on these concrete disarmament measures as they are to act on nuclear abolition itself. For instance, the conservatives in Congress have successfully blocked consideration of the CTBT and FMCT since the Clinton administration.¹⁴ And while the early rhetoric of the Obama administration reaffirmed the ultimate objective of a complete and irreversible nuclear disarmament, that rhetoric also made clear that the United States would be the last NWS to abolish its nuclear weapons.¹⁵ For their part, the British government seems ready to reauthorize their Trident nuclear missile program.¹⁶ The French government is also committed to retaining its nuclear deterrent for the foreseeable future. Although London and Paris have reduced their nuclear arms stockpiles down to the low hundreds, both governments seem intent on waiting to do further reductions until significant increases in international security and stability are forthcoming.¹⁷

Two considerations arise in light of the NPT NWS's reluctance to move on these and other concrete disarmament preconditions. One is that their reluctance is linked in part to their ensnarement in a set of dilemmas of political and moral import. If this is true, it implies that honoring a humanitarian imperative has both political and moral costs. This means that it is possible to act on a humanitarian imperative in a morally (and politically) irresponsible manner. A second and related consideration is that greater and more serious attention to the general analysis of the political preconditions might hold the key to pursuing nuclear abolition in a morally and politically responsible manner. It is important, however, to test this intuition to determine if realizing any or all of the preconditions for nuclear abolition might constitute or produce potential violations of international ethics.

Concrete Policy Measures for Nuclear Disarmament

Many experts and security scholars believe that nuclear disarmament requires a gradual series of preliminary confidence-building measures

undertaken by the NWS and key NNWS. These measures are considered crucial for decreasing mistrust among rival NWS—rewarding their cooperation, and thereby making it more likely that the NWS’s verbal commitments to nuclear disarmament will be enacted. The 13 steps outlined in the *Final Report of the 2000 NPT Review Conference* comprise the most succinct and authoritative list of such measures.¹⁸ The 13 steps were the product of intense lobbying of the NPT NWS by the New Agenda Coalition (NAC) states, which formed in 1998 and were originally comprised of the foreign ministers of Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa, and Sweden.¹⁹ The NAC 1998 declaration claimed that the NPT NWS had made insufficient progress on their NPT Article VI disarmament commitments in the three years following the 1995 indefinite renewal of the NPT and the time had come to specify concrete measures that would count as good faith efforts to honor those commitments. As evidenced by the 2000 RevCon Final Report, the NAC succeeded in convincing the NPT NWS to commit to the 13 steps, which are:

1. immediate and unconditional commitment to a CTBT;
2. verifiable moratorium on all nuclear testing until the CTBT’s entry into force;
3. immediate effort within the Conference on Disarmament to bring into force a treaty on banning the production of fissile materials for nuclear explosive devices in a reliable and verifiable manner, otherwise known as the FMCT;
4. immediate effort to establish the mandate for nuclear disarmament within the Conference on Disarmament;
5. commitment by all states to applying a principle of irreversibility on nuclear disarmament;
6. “unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all States parties are committed under Article VI”;
7. immediate undertaking to advance the Strategic Arms Reduction Treaties between the United States and Russia, and the strengthening of the Anti-Ballistic Missile Treaty which had been in force since the Cold War period;

8. completion and implementation of the Trilateral Initiative between the United States, Russian Federation, and the International Atomic Energy Agency (IAEA);
9. taking of concrete steps by all NWS toward nuclear disarmament in a way that promotes international stability and security, such as
 - a. unilateral nuclear arms reductions,
 - b. increased transparency in the same,
 - c. continued reductions of tactical nuclear weapons, stocks,
 - d. de-alerting of nuclear weapons,
 - e. diminishing the role of nuclear weapons in national security doctrines, and
 - f. engagement by all NWS in good faith negotiations toward nuclear disarmament;
10. placement by all NWS of fissile material no longer required for military purposes under IAEA verification protocols;
11. reaffirmation by all NWS of the ultimate objective of nuclear abolition;
12. regular reports by all NPT states parties on the progress in implementing Article VI; and
13. further development of verification capabilities that will ensure compliance by all to their NPT obligations.²⁰

The reader might notice the apparent redundancy in this list, insofar as points 4, 6, 9, and 11 repeat the nuclear abolitionist demand in different ways. Clearly, the NNWS sought to emphasize that each step counts as an important indicator of the NPT NWS's commitments to nuclear disarmament. Yet, at least some NWS are as reluctant to commit to the 13 steps as they are to ascribe to nuclear abolition itself. Thus, it should be emphasized that the most important preconditions of nuclear disarmament actually precede the realization of the 13 steps. Indeed, realizing the steps or nuclear abolition prior to instantiating these preconditions would be morally and politically irresponsible, leading to a reinvigoration of nuclear proliferation among the great powers.

Preconditions of the Concrete Policy Measures for Nuclear Disarmament

This section of the article examines the preconditions that an array of scholars have identified as preliminary to the undertaking of measures

in the 13 steps. This examination presumes that these preconditions make it possible for the NWS and key NNWS to undertake the 13 steps and ultimately nuclear abolition in a morally and politically responsible manner. Several key questions emerge about these preconditions with the aim of determining if morally responsible nuclear disarmament remains an elusive aspiration.

Vigilant Civil-Society Activism

First and foremost, it is highly unlikely that any NPT NWS will conform their policies to any of the 13 steps unless a sufficient number of their citizens put organized and sustained disarmament pressures on their respective governments. As Lawrence Wittner remarks

Given the tension between the widespread desire for nuclear disarmament and the national security priorities of the nation-state, nuclear policy usually has proved a rough compromise, unsatisfactory to either the nuclear enthusiast or critic. Often it takes the form of arms control, which regulates or stabilizes the arms race rather than bringing it to an end. . . . What, then, will it take to abolish nuclear weapons? As this study suggests, it will certainly require a vigilant citizenry, supportive of peace and disarmament, groups that will settle for nothing less than banning the Bomb. . . . [Additionally], we need to do no more (and should do no less) than change that [pathological nation-state] system.²¹

Wittner recognizes that neither the NWS's interests in unconditional nuclear armament nor the antinuclear movement's interests in unconditional nuclear disarmament have prevailed. Rather, a compromise position of *nuclear restraint* has emerged, which is an internationally regulated regime of nuclear deterrence and nonproliferation.²² Of course, a perpetual regime of nuclear restraint is inconsistent with the NPT NWS Article VI commitments as defined by the 13 steps. Article VI asserts one of the NPT's grand bargains: that in exchange for the NNWS remaining non-nuclear, the NWS state-parties commit to negotiations in good faith to the end of realizing nuclear disarmament. Even so, Wittner argues that states are not likely to act adequately on their Article VI commitments without a passionate and vigilant antinuclear movement. And since state leaders can effectively resist disarmament pressures because the *pathological state system* incentivizes such resistance, Wittner argues that the antinuclear movement must also work to change this system in significant ways, such as strengthening international law and organization.²³

Wittner's analysis echoes the institutionalist analysis of Ethan Nadelmann, who argues that global civil-society pressures to strengthen international law and organization are jointly necessary to produce changes in state behaviors.²⁴ Citing cases of the international prohibitions of piracy, privateering, and the slave trade, Nadelmann traces five stages of regime evolution. First, he finds the targeted activity (piracy, slavery), which state actors continue to regard as legitimate, is subjected to constraints only by reason of prudence or the balancing of other interests. The second stage involves sustained civil-society efforts to stigmatize the activity, for example to redefine the activity as evil instead of good. This stigmatization effort is usually led by moral entrepreneurs, for example international legal experts, religious leaders, or public intellectuals. The third stage involves unrelenting advocacy by states won over to the prohibitionist cause to criminalize the activity via international convention. Convinced states might undertake diplomatic pressures, offer economic inducements, threaten military action, or otherwise push for a formalized prohibition instrument. The fourth stage involves the creation and coming into force of the relevant prohibition regime, with the corresponding enforcements against the activity having now been established as legitimate. The fifth stage involves the corresponding decline of the activity to no more than obscure or marginal levels.²⁵

If Nadelmann's and Wittner's analyses are correct, vigilant antinuclear movement pressures are indispensable to the realization of the CTBT, the FMCT, the agreement on a principle of irreversibility, and the rest of the 13 steps. The necessary and sufficient conditions of establishing this global civil-society pressure are difficult to achieve. For this reason, such a movement cannot be distracted by partial victories or the political tidal waves that have often redirected policy makers' focus—such as 9/11 or Hurricane Katrina.²⁶

The Prospect of Deterrence Failure and Deterrence Destabilization

Another precondition of the 13 steps and nuclear abolition is the conviction among policy makers and scholars that nuclear deterrence policies are increasingly likely to fail the longer the deterrence regime lasts. A corollary awareness is that nuclear reprisal strikes are very likely to follow any nuclear deterrence failure. In 1986 Joseph Nye admitted that “even if nuclear deterrence has lasted for nearly four decades, it is difficult to believe that it will last forever.”²⁷ Moreover, there is an increasing historical

awareness that US nuclear deterrence policies often destabilized regions and rivalries more than not. According to Francis Gavin, nuclear weapons frequently “nullified the influence of other, more traditional forms of power, such as conventional forces and economic strength, allowing the Soviet Union to minimize the United States’ enormous economic, technological, and even ‘soft power’ advantages. Nuclear weapons also changed military calculations in potentially dangerous ways. It has long been understood that in a nuclear environment, the side that strikes first gains an overwhelming military advantage. This meant that strategies of preemption, and even preventive war, were enormously appealing.”²⁸

Gavin’s two-part observation suggests that deterrence failure is multifaceted. First, overreliance on nuclear deterrence can erode a country’s general deterrence posture, leaving it vulnerable to decreases in overall influence and power. In other words, nuclear weapons empower with one hand and disempower with the other. Additionally, Gavin suggests that the conventional understanding of deterrence failure—for example, where US deterrence fails at the point the Russians or another nuclear-armed power launches a nuclear first strike—is incomplete. It fails also if the United States succumbs to the temptation to launch a preemptive or preventive nuclear strike to gain the overwhelming military advantage. This latter case does not merely count as a failure of Russia or another country’s nuclear deterrence policy; such a first strike also incentivizes the attacked country’s reprisal strike, which the United States most definitely would want to avoid.

Clearly, the elimination of nuclear weapons is the most straightforward method of preventing nuclear deterrence failure. Not only would the absence of nuclear weapons cease to produce destabilizing effects that erode a country’s general deterrence posture, their absence would also make nuclear reprisal strikes necessarily impossible. If the entire purpose of a nuclear-deterrence regime was to prevent nuclear war and if deterrence cannot last forever, then rational policy makers should deduce (independent of civil-society pressures) that nuclear disarmament must be undertaken. Accordingly, the knowledge of the possibilities of deterrence failure seems essential to cultivating the motivation or determination to realize the 13 steps. Even so, the global antinuclear movement might also have to pressure policy makers toward this understanding, because those policy makers would remain pathologically wed to

national-security thinking over and above what history and probability recommend.

Security Dilemma Sensibility

A third precondition is suggested by Ken Booth and Nicholas J. Wheeler's concept of security-dilemma sensibility.²⁹ The superpowers' nuclear strategies during the Cold War were often explained as a function of the *security dilemma*, in which state A's decision to augment its (nuclear) force posture generates sufficient insecurities in state B such that B in turn develops or augments its own (nuclear) forces. In Booth and Wheeler's view, this conventional definition of security dilemma is conceptually confused insofar as it describes a paradox more than a dilemma. In contrast, a security dilemma is a two-level strategic predicament that characterizes decision situations.³⁰ The first level of the dilemma involves a policy maker's uncertainty about the motives, intentions, and capabilities of rival or neighboring states. State B, for example, observes that state A augments its nuclear force posture, and State B is uncertain if that posture is meant for deterrence only or if it might also support an offensive nuclear capacity. The intentions of state A are opaque to state B's leaders. Accordingly, the second level of predicament is the policy makers' uncertainty about the proper response to their rival's perceived threats. State B might or might not do well by developing or augmenting its own nuclear forces. This is to say, if A's augmentation is for deterrence only, B might get away with not responding in kind. However, can B trust that A's intentions are limited to deterrence? If not, then B must respond in kind, even if A initiates a subsequent round of nuclear force increases.

In this vein, history suggests that state leaders are intensely aware of their own nuclear predicaments and dilemmas, but they generally lack empathy regarding their rivals' predicaments and dilemmas. Moreover, state leaders are unaware of how their own aggressive policies activate fear and mistrust in their rivals. For instance, it was only after Mikhail Gorbachev and Ronald Reagan began to develop a modicum of mutual trust that Reagan came to understand that Moscow genuinely feared Washington.³¹ Thereafter, the two leaders cultivated a mutual awareness and sensitivity that largely facilitated the historic Intermediate Nuclear Forces (INF) Treaty of 1987.³² From this case, Booth and Wheeler concluded that

Gorbachev sought . . . to enter into the counter-fear of Western policy-makers by designing a set of policies aimed at fundamentally changing Western threat perceptions. His unilateral promise to cut those combat forces that most worried NATO planners . . . was arguably the most dramatic act of reassurance made during his time in office. The episode is a fascinating example of security dilemma sensibility because it demonstrated that leaders can take steps to increase their security which, far from decreasing the security of their potential adversary, actually increases the sense of security felt by both sides.³³

In light of this analysis, it would not be surprising if the INF Treaty would have been included on the 13 points' list of arms-control measures had not Gorbachev and Reagan already concluded it. This point suggests that security-dilemma sensibility is indispensable for realizing in a morally responsible way any of the concrete measures for nuclear disarmament—much less an irreversible nuclear disarmament itself.

New Security Narrative(s)

The foregoing preconditions are more likely to take root if the basic and traditional security narratives that comport with the present international order are revised or replaced by new security thinking. The debate among security theorists in the last several years reflects this contestation over the need to replace mainstream national or collective security thinking with conceptions that broaden or deepen the pool of *referents of security*.³⁴ This is to say, a new international relations security narrative that might undergird political efforts to achieve the 13 steps might replace realism and its exclusive focus on state security or even a broader conception of alliance security with a liberal or constructivist notion of human security. Indeed, this alternative security paradigm is suggested by Desmond Tutu's and the ICRC's and IFRC's invocation of the humanitarian imperative.³⁵

But perhaps the most pertinent form of new security thinking for the purposes of nuclear disarmament arose with the conception of common security advanced by the Palme Commission in 1982, which concluded "there can be no hope of victory in a nuclear war, the two sides would be united in suffering and destruction. They can survive only together. They must achieve security not against the adversary but together with him. International security must rest on a commitment to joint survival rather than on a threat of mutual destruction."³⁶

This statement suggests that conventional national-security thinking leads policy makers to believe that security is necessarily produced by the

actions taken *against* one's adversary. This belief is conditioned by the history of predatory or expansionistic state behavior in which the functions of force—for example, defense, deterrence, and compellence—comport with securing against such predation.³⁷ In Olof Palme's view, however, the conventional security conception is exploded in the wake of nuclear war. The mutual assuredness of destruction for the United States, the Soviet Union, and innocent third parties renders the notion of military victory empty. On the one hand, nuclear war is not a zero-sum game; it is a negative-sum game for all involved. Security, on the other hand, must be a positive-sum game in the nuclear era. Collective security realizes a modicum of security among allies; common security aims to realize security among rivals and enemies.³⁸

The case of Gorbachev is once again illustrative. He had exposure to the new thinking of the Palme Commission and the antinuclear thinking of the Pugwash Conferences.³⁹ In light of the various and severe economic and political challenges facing the Soviet Union at the time, Gorbachev began to see Soviet security not in terms of constantly being *against* the United States but *with* it on matters of joint concern. And although Soviet economic decline weighed heavily on his mind, it was this new thinking that enabled Gorbachev to act contrary to conventional national-security wisdom, to initiate conciliatory policies towards the United States at the very time Reagan was undertaking a significant arms buildup, and eventually to persuade Reagan of the necessity of eliminating nuclear weapons from the world.⁴⁰

The upshot is that it is dangerous and morally irresponsible to compel the NWS's adherence to the 13 points and ultimately nuclear disarmament in the absence of new security thinking. Any leader who remains committed to the old security thinking is likely to look for opportunities to cheat or subvert an imposed disarmament mandate. In contrast, leaders motivated by new security thinking are not likely to look for such opportunities but rather seek to fulfill their disarmament commitments.

Willingness to Accept the Risks of Vulnerability

A fifth and related precondition of the 13 points and nuclear disarmament is the willingness of heads of state to take the risks of vulnerability to induce a virtuous cycle of reciprocal acts of cooperation and trust. For Booth and Wheeler, a durable order of international cooperation

and trust depends upon a mutual willingness to put something valuable under another actor's control.⁴¹ It is expected that such willingness is not immediately forthcoming on matters of vital national security, such as on the possession and control of decisive weapons systems and related technologies. Unless state leaders have adopted a new and common security framework or unless they are otherwise pressured to do so, we would not expect leaders to take the kinds of risks necessary to start a virtuous cycle of cooperation and trust.

Yet, security cooperation cannot occur without a minimal level of trust among rivals or enemies. Immanuel Kant frames this as a point of normativity in his Sixth Preliminary Article for Perpetual Peace: "No state at war with another shall allow itself such acts of hostility as would have to make mutual trust impossible during a future peace."⁴² Ostensibly, the collective interest among the NWS in nonproliferation and war avoidance has already established a modicum of trust such that each has put something valuable into the other's hand. The question is if the civil-society antinuclear pressures, the sober knowledge of the fragility of nuclear deterrence, an initial security-dilemma sensibility, and perhaps a commitment to some new security thinking will pave the ground for the kind of willingness to become vulnerable suitable to realize the demands of the 13 steps and, ultimately, the Article VI demands of nuclear disarmament.

The previously mentioned case of Gorbachev's moves toward conciliation illustrates the effectiveness of his risk taking in this regard. His unilateral decision to initiate arms reductions put at risk the notion of Soviet strategic parity with the United States. Additionally, when Reagan refused to reciprocate by putting his plan for strategic missile defense, or Star Wars, at risk, Gorbachev felt he had no other reasonable alternative but to "make further conciliatory moves."⁴³ Such moves included freeing Russian dissident Andrei Sakharov, putting much of the authoritarian system of Soviet governance at risk. Eventually, Reagan and Gorbachev agreed on the INF Treaty, even though Reagan never backed off of his insistence on Star Wars. The upshot is that the willingness to make oneself vulnerable to an adversary is more likely to secure the central objective of disarmament, even if the conciliation cannot reach to all other matters that might have importance.

A Joint Set of Preconditions

As important as every precondition listed above is, each is more likely to have substantial or maximal effect if it is activated in concert with all the others. For instance, the security-dilemma sensibility mutually exhibited by Gorbachev and Reagan lasted as long as these men held office. Afterward, the return of security-dilemma insensibility strained the relationship between the United States and Russia, such that Pres. Barack Obama and Russian president Vladimir Putin seem unable to exercise mutual empathy. Even the common security framework and cooperation that has marked the European Union for a number of years is fraying under the pressures of nationalism and mistrust.⁴⁴ In the absence of irresistible and permanent civil-society pressures, a firm and lasting conviction in the inevitable failure of nuclear deterrence or new security thinking that displaces the old, it seems that any attempt on leaders' parts to cultivate security dilemma sensibility will be eventually undermined.

Yet, the global civil-society demand for nuclear disarmament (even though it is not yet irresistible or permanent) on the moral grounds of a humanitarian imperative would likely insist that states that are committed to the ends of nuclear disarmament are committed to the means of disarmament. If the end cannot be achieved in one ambitious and risky step, then it must be achieved by means such as what are suggested by the 13 steps. Moreover, if those steps cannot be accomplished in turn, then the aforementioned demand is translated into one in which states must commit themselves to the knowledge that nuclear deterrence is likely to eventually fail, that new security thinking is in order, and that the security dilemma is better addressed by conciliation rather than security against one's enemies. Otherwise, the complex project of nuclear disarmament cannot be undertaken in a morally and politically responsible manner. "What do international ethics tell us about the project of states committing to these preconditions," is the next question to ask. Is there a harmony among the moral end of nuclear disarmament and the means to achieve it, or do we find competing moral principles at play that render the prospect of realizing the preconditions morally problematic?

Moral Ends and Moral Means for International Institutions—A Set of Ethical Dilemmas

In his *On the Social Contract*, Jean-Jacques Rousseau argues that any legitimate and sure principle of government aims at bringing together “what right permits with what interest prescribes so that justice and utility are in no way divided.”⁴⁵ Rousseau suggests that the terms *interest* and *utility* refer to morally desirable outcomes and *right* and *justice* refer to actions that morality would affirm. By making this argument, his aim is to link a concept of legitimacy in governance with the harmony of moral ends and means. The statements by the moral entrepreneurs of nuclear disarmament, like the ICRC, IFRC, and Archbishop Tutu, appear to assume as moral fact what Rousseau proposes conditionally. This is to say, the antinuclear movement appears to believe that an immediate and complete nuclear disarmament satisfies utility and justice such that it is necessarily a morally and politically responsible policy or, in the absence of an immediate and complete disarmament, that an immediate compliance with the 13 steps reflects the moral harmony of ends and means and is thus morally and politically responsible. The argument here is just the opposite; preliminary steps must be taken before adopting the 13 steps and before nuclear disarmament itself can be accepted as morally and politically responsible. This argument can be tested against a series of objections.

Is Inducing a Fear of Nuclear Holocaust Morally Responsible?

Ultimately, one important precondition for realizing the 13 steps and nuclear disarmament is mobilizing citizens from several NWS and NNWS into a global antinuclear movement to demand action. Accordingly, it seems important that moral entrepreneurs and global civil-society leaders must first *securitize nuclear weapons* among individuals who would join this movement. The act of securitization involves a securitizing agent mobilizing an audience via speech acts to perceive a *threatening* other's act or posture as an extraordinarily dangerous and thereby extract the audience's permission to take emergency security measures.⁴⁶ In our case, the securitizing agents are the leaders of the global antinuclear movement and the initial audiences that must be addressed are the present and potential members of this movement.⁴⁷ Afterward, the roles change somewhat: the main audience of the securitizing agent (which is now the antinuclear movement as a whole) is

comprised of governments and citizens of the NWS and key NNWS. The purpose of the securitization in both stages is to cultivate in the audience a concrete and profound fear of nuclear holocaust such that the movement's members can mobilize a sustained and irresistible demand for nuclear disarmament and the NWS will accede to the movement's demands. However, cultivating such fear risks producing a collective psychological trauma among the audience that might count as moral harm to them. Is the cultivation of this kind of fear permissible on humanitarian moral grounds? Is it morally responsible?

The answers to these questions are morally complicated. It must first be recalled that the securitization of nuclear weapons is undertaken in the context of their prior deployment by the NWS for war fighting, deterrence, or compellence purposes. These deployments were emergency security measures undertaken after the various NWS governments had effectively securitized their enemies to their respective citizenries. Recall that the United States securitized the Soviets as godless communists bent on expansion; the Soviets securitized the United States as ravenous capitalist expansionists.⁴⁸ For many Americans and Europeans, the fear of nuclear war in the aftermath of deterrence failure was palpable, and some observers made the argument that the experience of this fear counted as a significant moral harm.⁴⁹ For his part, Steven Lee argued that the immorality of nuclear deterrence is principally found in the practice of *nuclear hostage holding*, where innocent civilians are put at risk of nuclear war without their consent. For Lee, this meant nuclear deterrence is immoral even if the hostages are unaware of their condition and accordingly do not suffer a collective psychological trauma. Nonetheless, he claimed that causing such psychological trauma provides another reason for reproaching hostage holding.⁵⁰ Given this context, how should our considered moral judgments regard the seeming necessity of the *countersecuritization* of nuclear weapons by the antinuclear movement's leaders and the corresponding production of a concrete and profound fear of nuclear holocaust among movement members—and later among citizens of the NWS?

Moral consequentialism might claim that the production of this fear is necessary and therefore morally justifiable or excusable. After all, it was Reagan's fear of nuclear holocaust, seemingly activated by watching a prescreening of the film *The Day After*, that began the long process of his willingness to listen to and ultimately cooperate with Gorbachev on

nuclear reductions and the INF Treaty.⁵¹ Additionally, Wittner demonstrates that an appeal to motives independent of fear of nuclear holocaust has been insufficient to mobilize the kind of public outcry that can influence state nuclear policy.⁵² In both cases, the motivating fear haunts the actors and drives them to extraordinary actions to prevent the occurrence of the object of their fear. Thus, it seems morally necessary to cultivate a concrete and profound fear of nuclear holocaust among the members of the antinuclear movement and then citizens of the NWS.

In contrast, it seems a deontological ethical approach might offer reasons both for and against cultivating this fear. On the one hand, it is at first sight morally wrong to inflict psychological trauma on people, for it violates their human rights of personal security to be free from the threat of harm. Moreover, in accordance with the wrongful intentions principle, it is wrong for antinuclear movement leaders to intend to cause psychological trauma among their followers and then on other individuals.⁵³ Another deontological principle requires that evil should never be done in order to realize a good.⁵⁴ If this view is decisive, then it is morally irresponsible or immoral to cultivate a concrete and profound fear of nuclear holocaust in *anyone*.

Conversely, one might distinguish between kinds of intentions and their respective moral valences—namely, the intention to prevent nuclear holocaust in contrast to the intention to cultivate a relevant fear for the purposes of effective antinuclear advocacy. In this view, the intention behind the countersecuritization of nuclear weapons is straightforwardly aimed at human security and the just liberation of nuclear hostages. In the nonideal setting of a nuclear-armed world, it seems that a right intention aimed at doing what is right can excuse or perhaps justify in moral terms the kind of act that is ordinarily impermissible—especially if the audience that is responsible for exercising the requisite political pressure to achieve nuclear disarmament consents to the imposition of that fear. If this view is decisive, then it is morally responsible or required to cultivate a concrete and profound fear of nuclear holocaust.

It follows from the preceding four paragraphs that the decision to cultivate such a fear is hostage to competing moral requirements and, accordingly, antinuclear movement leaders are caught in a moral dilemma. They violate at least one deontological principle if they decide to cultivate a fear of nuclear holocaust, and they violate at least one consequentialist and one deontological principle if they decide against

such action. In the absence of an authoritative metatheoretical argument that can adjudicate this controversy, it seems that cultivating a concrete and palpable fear of nuclear holocaust is not a clear morally responsible course of action.

Is the Cultivation of Security Dilemma Sensibility Morally Justifiable?

It has been argued that the cultivation of security-dilemma sensibility among the leaders of rival NWS and key NNWS is important for their adherence to the 13 steps and ultimately achieving nuclear disarmament. At first glance, the exercise of security-dilemma sensibility is morally uncontroversial, as it aims at producing greater stability and security and it also seems to comport with the positive formulations of the wrongful intentions principle and the never evil for good principle.⁵⁵ However, it is important to recognize two significant political difficulties of cultivating security-dilemma sensibility among state leaders and then determine if these difficulties have moral import.

One difficulty is cultivating security-dilemma sensibility in the face of determined foreign opposition. In a real sense, the cultivation of security-dilemma sensibility is a constituent part of inculcating new security thinking—for example that my state's security is better conceived in terms of *with* and not *against* our rivals and enemies. Well-known cases include the French and British resistance to Pres. Woodrow Wilson's attempts at conciliation with Germany in the talks leading up to the final creation of the League of Nations in 1919, President Reagan's initial reaction to Soviet general secretary Gorbachev's attempts to begin the process of nuclear arms reductions and nuclear disarmament, and the Israeli and Sunni Arab states' resistance to President Obama's outreach to Iran regarding the latter's nuclear program. From the Booth and Wheeler account of the Gorbachev case, it is clear that the Soviet leader was not dissuaded by Reagan's initial resistance, and Gorbachev eventually succeeded in facilitating Reagan's own empathetic stance toward the Soviet dilemmas. However, the political difficulties of fostering security-dilemma sensibility do not override the moral imperative to do so.⁵⁶

Another difficulty is cultivating security-dilemma sensibility in the face of determined domestic political opposition. It is easy to recall a handful of well-known and relevant cases in US history where attempts at exercising empathy and conciliation were opposed and sometimes

defeated: the resistance by President Reagan's foreign policy advisors and members of the Republican Senate toward his empathetic response to Gorbachev and his success in getting a subsequent Democratic Senate to ratify the INF Treaty, Pres. Bill Clinton's failed efforts at getting a Republican Senate to ratify the CTBT, and the bipartisan resistance to President Obama's outreach to Iran over that country's nuclear program. In each of these cases, the domestic opposition lacked empathy for the insecurities of the Soviets, the NNWS, and the Iranians, respectively. Thus, if the only practical option for reversing their insensitivity to others' security dilemmas is to securitize nuclear weapons in the mode discussed in the previous subsection, then we reengage the question on the moral responsibility or irresponsibility of cultivating the requisite fear of nuclear holocaust among the domestic disarmament opponents. Alternately, if another practical option is to politically marginalize one's domestic opponents and render their opposition irrelevant, then the moral dilemma of securitization is avoided and the state leader can proceed to act in ways that are empathetic. This course of action, however, might trigger the issue of the morality of inducing state vulnerability.

Is Inducing State Vulnerability Morally Responsible?

Theorists of international regimes claim that security cooperation can be fostered by a state seeking to reassure its rivals or enemies by sending a costly signal.⁵⁷ In Gorbachev's case, he sent a series of costly signals in the form of concessions to the West that made the Soviets vulnerable. However, Gorbachev took the gamble because he did not believe the West would attack if the Soviet Union acted in a nonprovocative way.⁵⁸ His domestic opponents believed the opposite or at least believed the West would not bypass an opportunity to take advantage of the Soviets. Collectively, the Soviet leadership was uncertain about the US response. Reagan reciprocated Gorbachev's costly signal with his own willingness to proceed toward nuclear disarmament.⁵⁹ In hindsight, it is clear the outcomes of Gorbachev's costly signals were positive for disarmament advocates, and this gives credence to the idea that his actions were morally responsible.

However, each decision about sending costly signals to rivals or enemies and inducing vulnerability of one's state is made in the context of uncertainty about some future act of reciprocation. Unless several rounds of confidence-building measures have already been completed,

it is extremely difficult for a state leader to estimate the risks of betrayal by rivals or enemies if one is the first to send a costly signal. Moral consequentialists who are risk averse would likely argue that inducing state vulnerability by acceding to the CTBT or committing to a principle of irreversibility is politically and morally irresponsible. Consequentialists who are not risk averse would likely argue the opposite. Kantian deontologists might apply one or more of the preliminary articles for perpetual peace to say that state vulnerability is morally required, and yet some measure of prudence must be retained in deciding on the kind of signal sent and the means of sending it.⁶⁰ Regarding this approach, a costly signal that corresponds with moral responsibility is a function of a nonideal coordination between moral duty and ends-means rationality.

Accordingly, suppose an organized and irresistible global antinuclear movement succeeds in raising the political costs of NWS's disarmament avoidance beyond tolerable levels, and suppose also that not all NWS leaders have begun to exercise security-dilemma sensibility. The political pressures on NWS to induce a virtuous cycle of cooperation or to reciprocate in turn on nuclear disarmament policies will introduce the risks of state vulnerability. Any costly signal that one NWS sends carries the risk that other NWS or key NNWS will not reciprocate in relevant ways. It seems only Kantian deontology can ground an argument that inducing such vulnerabilities is morally responsible. Moral consequentialist arguments most likely will argue that making states vulnerable in such ways is morally irresponsible because the risks of betrayal are too great. Thus, even if these consequentialists accept that a world free of nuclear weapons is morally preferable to a world of nuclear-armed states, the risk of acquiring such a world makes inducing state vulnerability morally irresponsible. This conclusion is decisive if it is true that morality follows rationality.⁶¹

It follows from the immediately preceding paragraphs that the question of the morality of inducing state vulnerability for the purpose of achieving conformity to the 13 steps and to the broader moral requirement of nuclear disarmament is morally dilemmatic. Unless a virtuous cycle of cooperation has already been initiated, the chances of moral failure are significant for leaders who take the first step of sending a costly disarmament signal. Additionally, in the absence of reliable future knowledge, the moral arguments for or against inducing state vulnerability might be reduced to questions of risk aversion. At any rate, it

cannot be unambiguously argued that compelling state vulnerabilities in the name of compliance with the 13 steps or ultimately nuclear disarmament is morally responsible.

Conclusion

The question of the moral imperative of nuclear disarmament involves the question of the morality of its means. This paper accepted as given the uprightness of disarmament intentions. It also assumed the moral goodness of the outcome of nuclear disarmament on the grounds of the humanitarian imperative. However, it problematized the claims that an immediate nuclear disarmament was necessarily responsible in moral and political terms and the claims that compliance with any set of disarmament preconditions is necessarily morally responsible. The core premise of the argument is that the path to nuclear disarmament is morally responsible if—and only if—none of the steps on that path violate some actors' interests or rights of moral import. Cultivating a concrete and profound fear of nuclear holocaust among antinuclear activists and citizens of NWS and key NNWS might well violate moral rights and interests. The cultivation of security-dilemma sensibility seems more likely to satisfy the requirements of moral responsibility, but such cultivation motivates the decision to send costly disarmament signals that might induce significant state vulnerabilities. Additionally, this last precondition is as or more morally dilemmatic as cultivating a fear of nuclear holocaust.

The issue here is not to argue *decisively* that the means of nuclear disarmament are morally irresponsible. Rather, the issue is that this question is under-theorized. The fields of nuclear ethics and international security ethics have not yet adequately thought through the details of the conditions under which “justice and utility are in no way divided” for the question of nuclear abolition. ❧

Notes

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Hypersonic Weapons and Escalation Control in East Asia

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Abstract

Hypersonic weapons, which can achieve speeds over five times faster than the speed of sound (Mach 5), are the latest version of precision-guided munitions (PGM) that are part of the larger family of long-range strike weapons systems. In the United States, hypersonic weapons are pursued in the context of the conventional prompt global strike (CPGS) programs that are most commonly defined by officials as the ones pursuing the technology of “high-precision conventional weapons capable of striking a target anywhere in the world within one hour’s time.”¹ Hypersonic weapons have been a reason for concern, especially after the two Chinese tests in January and August 2014.² However, outside the United States, nations pursue hypersonic technology in secrecy; therefore, we have little information regarding the stage of development the Russians or Chinese have achieved. Nevertheless, what became evident from the short period that separated the two Chinese tests is the emphasis given to a rapid-paced development and the strategic value of the new weapon for China.³

While effectiveness is still questionable, long-range, high-precision weapons that travel at extremely high speeds are a promising new technology states pursue. Shorter-range hypersonic weapons appear to be a more feasible technology, while global-range weapons are a goal that is still far from being reached. Nevertheless, states invest heavily in both variants, and it appears operational capability is only a question of time. That said, our theoretical understanding regarding state decisions to adopt hypersonic weapons and the impact of such systems on state behavior, escalatory dynamics, and systemic power distribution needs to be deepened.⁴

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This article offers theoretical debates that inform the discussion, first by analyzing the evolution and rationale for US and Chinese hypersonic weapons. Secondly, the analysis seeks to understand the escalatory dynamics of hypersonic weapons in a conflict scenario in East Asia with a focus on the US-China relationship.



Evolution and Rationale of Hypersonic Weapons

Hypersonic weapons diffusion appears to have started as a technology to increase US security against terrorist threats. However, perceptions over its offensive and first strike potential increased other states' fears over the implications of the new technology at the systemic level. Put differently, perceptions of the new weapons' impact on the nature of future systemic outcomes (offense or defense dominance) motivate states to adopt or reject an innovation in pursuit of security rather than power maximization.⁵ To support this theoretical suggestion one must first look at the rationale behind the development of hypersonic weapons in the United States and China. Second, one must investigate the link between the development of CPGS and ballistic missile defense (BMD) in the US and Chinese fears of an American disarming preemptive strike, which ultimately led to the Chinese decision of developing hypersonic weapons.

US Evolution: From Counterterrorism to Anti-Access/Area Denial

Investments in hypersonic-weapons technology took place in the context of the Pentagon's CPGS agenda, which in its beginning was ballistic technology-dominated. After Congress refused funding for CPGS options that follow a ballistic trajectory, the Pentagon finally dropped the ballistic-technology focus. China and Russia expressed fears of warhead ambiguity and the destabilizing effects from the initiation of the program.⁶ Russian and Chinese concerns were predicated on the fact that ballistic trajectories created ambiguities regarding the nature of the warhead (nuclear or conventional) carried by the delivery system.⁷ Moreover, the weapons development would have been restricted by the

provisions of the Intermediate-Range Nuclear Forces Treaty and Strategic Arms Reduction Treaty. With regard to CPGS missions, the following section explains the versatile strategic importance of the program that allows for the shift of emphasis from counterterrorism and counterproliferation missions during the George W. Bush administration to survivability and penetrability in anti-access and area-denial (A2/AD) operational environments during the Obama administration.

The idea of developing a CPGS emerged in the 1970s from a RAND report and survived until the beginning of the twenty-first century. RAND recommendations suggested the mating of conventional warheads to nuclear delivery systems such as intercontinental ballistic missiles (ICBM).⁸ The idea gained more traction after the end of the Cold War, providing the opportunity to capitalize on existing missile systems to create new capabilities that remain within the conventional scope. At the strategic level, the fall of the Berlin Wall marked the transition from the first to the second nuclear age—or the passing from the third wave of deterrence to the fourth.⁹ Ushering in the second nuclear age presented the United States with new challenges that traditional deterrence based on mutual assured destruction could not necessarily tackle. In other words, US nuclear threats would not be credible against smaller powers—mainly rogue states and terrorist organizations—due to the disproportional nature of the threat. The United States needed the range and speed of ballistic technology with more accuracy and maneuverability but less destructibility. This requirement created the foundation of the Pentagon's support for CPGS during the Bush and Obama administrations and the subsequent turn to hypersonic weapons that offer all of the above-mentioned strategic options.

Starting from the Bush administration, in 2003 the Pentagon gave flesh and bones to the CPGS idea. The program sought to provide the president with the ability to decide and order strikes on a global scale that could reach their target in less than an hour. Such an option would decrease reliance on US forward-based forces and avoid concerns about US casualties due to the enemy's air defenses.¹⁰ US Strategic Command (USSTRATCOM) established its Joint Functional Component Command for Global Strike (JFCC-GS) in 2006 with the following mission statement:

JFCC-GS is designed to optimize planning, execution and force management for the assigned missions of deterring attacks against the United States, its ter-

ritories, possessions and bases . . . it provides integrated global strike capabilities to deter and dissuade threats and when directed defeat adversaries through decisive joint global kinetic and non-kinetic combat effects.¹¹

Table 1. Key Differences between the three technological approaches for conventional hypersonic long-range strike

	Terminally Guided Ballistic Missiles	Boost-Glide Weapons	Hypersonic Cruise Missiles
Maximum Range	Intercontinental	Global	Regional
Mid-Course Maneuverability	Zero	High	High
Terminal Maneuverability	Limited or very limited	Medium or High	Medium or High
Ballistic over the Majority of Trajectory	Yes	No	No

(Modified from James M. Acton, *Silver Bullet: Asking the Right Questions about Conventional Prompt Global Strike* [Washington, DC: Carnegie Endowment for International Peace, 2013], 36.)

The Bush administration's more nuanced approach to post-Cold War volatile threats led to a new triad aimed at reducing the role of nuclear weapons in US defense policy. The new triad consisted of nonnuclear strike options, a strong industrial base, and more investments in missile defenses.¹² The 2006 *Quadrennial Defense Review (QDR)* takes the notion further, proposing a more tailored deterrence that can remedy the "one-size-fits-all" traditional approach in an effort to respond to threats coming from terrorists, nonstate actors, and rogue states.¹³ In the words of the report

Consistent with the New Triad priorities developed during the 2001 Nuclear Posture Review, the force will include a wider range of non-kinetic and conventional strike capabilities, while maintaining a robust nuclear deterrent, which remains a keystone of U.S. national power. The force will also include integrated ballistic and cruise missile defenses, and a responsive infrastructure. These capabilities will be supported by a robust and responsive National Command and Control System, advanced intelligence, adaptive planning systems and an ability to maintain access to validated, high-quality information for timely situational awareness. Non-kinetic capabilities will be able to achieve some effects that currently require kinetic weapons. The Department will fight with and against computer networks as it would other weapon systems. For prompt global strike, capabilities will be available to attack fixed, hard and deeply buried, mobile and relocatable targets with improved accuracy anywhere in the world promptly upon the President's order.¹⁴

The prompt strike justification was further founded upon the main conclusions of the National Research Council's Committee on Conventional Prompt Global Strike Capability report, which determined that long-range options such as bombers or aircraft carriers could take hours for deployment depending on their station point.¹⁵ At the time, only ballistic nuclear-tipped missiles could be used in a prompt manner. However, the high destructibility of these weapons made them undesirable. Hence, the administration committed itself to looking at options that would enhance the conventional arsenal, offering faster, more accurate, and more usable options—or in other words, hypersonic boost-glide vehicles and cruise missiles.¹⁶

No administration explicitly articulated the missions of CPGS. The program's versatile and multifaceted operational potential allows for funding requests without specifically advocating a concrete mission the weapons system can serve. Nevertheless, it is logical to argue that it was mainly the strategic environment that dictated strategic thinking regarding CPGS missions in each period. During the Bush administration, CPGS was primarily directed toward counterterrorism operations targeting counterproliferation efforts or gatherings of terrorists. Conventional long-range, prompt strikes can more effectively deter terrorists, since the US threat is more capable and materially implementable (deterrence by denial). With regard to rogue states, CPGS can offer feasible preemptive options that will prevent the adversary from being able to use its forces. Moreover, CPGS reinforces deterrence by punishment, given that once the target has been located and identified, conventional strikes can hit it. The new term that arose from this strategic thinking is coined "counternuclear" strikes, as it is broader than counterforce since it instead targets nuclear warheads; command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) systems; and production and storage facilities.¹⁷ Finally, CPGS, after the Chinese antisatellite (ASAT) test in 2007, was also considered as a plausible option for use against missile strikes that aim to degrade the US C4ISR systems (decapitation strategies) and therefore cripple the American war effort.¹⁸

The Obama administration continued the policy as it was articulated in the QDRs of 2001 and 2006 with further investments in BMD and CPGS. However, the focus appears to be shifting from time-urgent and pop-up targets to missions that require high survivability of weapons

that need to travel in environments where access is denied. Hence, the 2010 *QDR* talks about possible combat scenarios in theaters of operations characterized by A2/AD components:

U.S. forces must be able to deter, defend against, and defeat aggression by potentially hostile nation-states. This capability is fundamental to the nation's ability to protect its interests and to provide security in key regions. Anti-access strategies seek to deny outside countries the ability to project power into a region, thereby allowing aggression or other destabilizing actions to be conducted by the anti-access power. Without dominant U.S. capabilities to project power, the integrity of U.S. alliances and security partnerships could be called into question, reducing U.S. security and influence and increasing the possibility of conflict.¹⁹

The Obama administration goes so far as to advocate for the development of a family of long-range systems at the heart of which lies the CPGS program. The Pentagon has undertaken a study on the “combination of joint persistent surveillance, electronic warfare, and precision-attack capabilities, including both penetrating platforms and stand-off weapons whose results will inform the FY12–17 defense program.”²⁰ Setting aside the austere fiscal environment, from the long-range family of systems, hypersonic versions of CPGS appear to be the fastest and most survivable option with no need of forward deployment. It becomes obvious that especially after hypersonic weapons survived sequestration and their plethora of testing failures notwithstanding, US civilian and military circles appear to be deeply invested in the further development of these systems. Any doubt regarding further funding of the program evaporated after the Chinese tests in January and August 2014, which confirmed the pursuit of similar systems by a US peer competitor. Congressmen Buck McKeon (R-CA), Randy Forbes (R-VA), and Mike Rogers (R-AL) expressed their concern in a letter stating that “other competitor nations push toward military parity with the United States.” Following the Chinese testing, Congress prioritized hypersonic weapons programs, with raises in funding and testing.²¹ In fact, Congress allocated \$70.7 million for FY15, specifically supporting the Army's Advanced Hypersonic Weapon (AHW).²²

US CPGS and Hypersonic Weapons Programs

Hypersonic weapons technology has been around for decades. Nevertheless, research was far from reaching the level of maturity that would allow experts to see a possibility of initial operational capability in the

near future. After a number of successful tests of shorter range hypersonic weapons such as the Army's AHW, recent developments have raised optimism.

With a range of 8,000 km, AHW was initially funded as the risk mitigation program of the Hypersonic Technology Vehicle (HTV), which has a range as great as 17,000 km.²³ However, after the AHW proved successful in testing—which was not the case for HTV—Congress decided to direct funding toward AHW and lessen support for HTV. The advantage of AHW is its already tested technology, the Sandia Winged Energetic Reentry Vehicle Experiment, which renders the system a technologically more feasible solution—albeit with a shorter range.²⁴ Both boost-glide vehicles, AHW and HTV, might be used in tandem with the Conventional Strike Missile (CSM) as their launch booster. For now the CSM is capitalizing upon retired ICBMs like the Peacekeeper—calling their updated version the Minotaur IV.²⁵ Other possible alternative launch boosters might be the ArcLight Missile which is a vertical launch system deployed on surface combatants and attack submarines, while the administration has also requested more research on the so-called Sea Strike or Submarine-Launched Intermediate-Range Conventional Strike Missile.²⁶ The main justification for investments in new hypersonic technologies stems from the US rebalancing effort toward the Asia Pacific and the highly contestable operational environment characterized by the Chinese A2/AD capabilities.

The United States also pursues a number of hypersonic cruise missile technology options. Research started in the 1950s within the context of developing a hypersonic space plane that can reach space. The program has been unsuccessful so far, and attention has shifted to the development of hypersonic cruise missiles and aircraft instead.²⁷ Hypersonic cruise weapons rely on scramjet engines and are “an unmanned, self-propelled vehicle that sustains flight through the use of aerodynamic lift over most of its flight path.” In contrast to cruise weapons, boost-glide vehicles are not self-propelled but glide “unpowered to the target after release from the booster,” as Thomas Scheber and Kurt Guthe explain.²⁸ So far, the main programs that have received funding are the National Aeronautics and Space Administration's X-43A (Mach 6.8) and the US Air Force's (USAF) and the Defense Advanced Research Projects Agency's X-51A WaveRider programs—the latter of which can fly at Mach 5 for longer periods.²⁹

Interestingly, boost-glide vehicles and hypersonic cruise missiles are funded by different programs, possibly because of their differences in range and technologies. Therefore, there seems to be no specific thinking or planning to use hypersonic cruise missile technology for CPGS missions, even though logically that would be a feasible idea in regional scenarios where cruise range would not be a problem.³⁰ Although concrete plans have not yet been announced given the preliminary stage of research and development and political and strategic considerations, the use of hypersonic cruise missiles for counterterrorism operations or high survivability and penetrability in A2/AD operational environments appears to be attractive in regional conflict scenarios.

Chinese Hypersonic Weapons Evolution

In late 2010, the Chinese test of the DF-21D antiship ballistic missile (ASBM), with a maneuverable warhead and range at around 1,500 km, took most US experts and high echelon officers by surprise. Scholars even characterized the missile as the game changer that will have profound consequences on the regional strategic and diplomatic dynamics.³¹ Apart from the missile's evident mission to target aircraft carriers and defeat regional BMD, the missile is of great importance, constituting China's stepping stone from a ballistic technology to a hypersonic weapon and a CPGS capability. As the most insightful work of the topic states

ASBM and subsequent strategic strike programs entail four phases. The first phase will involve fielding of a rudimentary 1,700 to 2,000 km range ASBM by the end of the 11th Five Year Plan in 2010. A second phase, scheduled for completion by the end of the 12th Five Year Plan in 2015, would incorporate sophisticated aerodynamic maneuvering capability that would not only enhance a missile's ability to penetrate missile defenses, but also extend its range. The third phase would end with the fielding of a boost-glide missile [助推-滑翔式导弹] capable of intercontinental strikes by 2020. A final capability, deployed before 2025, would be a hypersonic cruise vehicle for global operations.³²

China's tests of its WU-14 hypersonic glide vehicle (HGV) in January and August 2014 follow the lines of development as described by Mark Stokes in the above excerpt. The tests confirmed the country's determination to develop hypersonic weapons. Scholars who follow modernization of the Chinese armed forces stressed China's commitment to hypersonic technology given the short period separating the two tests.³³

Judging from the tests, the launch booster is a Chinese ICBM and the payload hypersonic vehicle managed to travel at Mach 10 for a couple of minutes.³⁴ Some have speculated that the Chinese HGV will first be used as a theater-range weapon with possible range extensions in the future that might stretch as far as intercontinental and later global ranges.

The leap to a global power-projection capability for China will be of paramount importance. However, political factors and the role China chooses to play in the future will determine whether or not China will in fact embrace such a goal. Speculation on China's goal to move toward power projection skyrocketed after the country's effort to refurbish a Ukrainian aircraft carrier, the maiden voyage of which took place in November 2013. Concerns were rather ungrounded, given the carrier's limited potential and need for years of training and exercising to operate a carrier strike group (CSG) effectively. Hence, before China develops highly capable and operational CSGs, the nation's aircraft carrier, the *Liaoning*, will only be a political symbol for military diplomacy in the region. While Chinese power-projection goals are important in the long-term theater operations, A2/AD strategies might make a more feasible option, offering greater potential for success. Within that context, hypersonic weapons might in fact offer a very promising option.³⁵ Their low and flat trajectories make the weapons less vulnerable to BMD than ballistic technology versions (DF-21D). At the same time, China is also developing hypersonic cruise missiles with scramjet engines that can be launched independently and make a very good fit in the context of A2/AD operational objectives.³⁶

Impact of US CPGS Development on Chinese Military Modernization: Seeking to Match US Capabilities

US policies and investments in BMD and CPGS, even though not directly linked to Chinese capabilities, created gaps in perceptions and exacerbated fears about US intentions to contain China.³⁷ According to Chinese experts, a few main reasons lurking behind Chinese concerns were the traditionally small size of its nuclear arsenal and that arsenal's questionable second-strike capability.³⁸

In more detail, Chinese leaders have embraced the doctrine of *yī diǎn* (a little bit) from the beginning of the country's nuclear program. Chairman Mao Tse-tung believed China should have a little bit of nuclear

weapons, maintain those weapons a little bit, and make those weapons a little bit better.³⁹ Mao believed China should exercise great restraint and never get into an arms race with another country. Many scholars argue that while lack of resources was the main reason for constraint in the 1960s, the country now has the option of developing a more powerful nuclear arsenal but has decided not to do so. However, the Chinese doctrine of minimum deterrence is one predicated upon the flexibility of the force, the size of which can vary depending on the threat it seeks to offset. Recent Chinese modernization of its nuclear arsenal lends credence to assumptions of acute Chinese fears that mainly stem from American investments in BMD and CPGS as well as the US refusal to abandon its first-use policy.⁴⁰ In fact, for the first time, China has linked its nuclear arsenal's posture, size, and development to another country's capabilities—that of the United States.

Specifically, Chinese experts talk about the scenario of China being subject to American coercion, a concern that is mainly due to US nuclear superiority, which—married to BMD and CPGS—puts at risk Chinese retaliatory capability.⁴¹ The United States, through numerous consultations and track-two dialogues, tried to communicate the details of each program's development to assuage Chinese fears. Most US documents also refer to the development of both BMD and CPGS at small numbers, aiming at reassuring China and Russia, since a small development was deemed unthreatening to both arsenals.⁴² Russia's robust nuclear arsenal did not leave space for a weak deterrence, especially provided the questionable effectiveness of current BMD systems.⁴³ China, on the other hand, felt deeply influenced by US actions, expressing fears regarding the survivability of its nuclear forces in the scenario of a disarming first strike.⁴⁴ Chinese fears were reinforced with the Missile Defense Act of 1999 under which Congress started funding BMD projects. The final blow came when the Bush administration unilaterally withdrew from the Anti-Ballistic Missile Treaty in 2002.

The main concerns, therefore, pertained to land-based weapons, which Chinese pundits and officials deemed especially threatened. Chinese missiles tend to be mainly liquid-fueled, with long periods of preparation before launch. Thus, American BMD and CPGS developments threaten to render the small Chinese arsenal ineffective, pushing China to build a larger force. Wu Chunsi states that missile defense makes China's "no-first-use" doctrine increasingly difficult to maintain because it

gives the United States a double advantage in both offensive first-strike capability and credible defensive capability. To ensure its retaliatory capability, China proceeded with a high-scale modernization of its arsenal. Even though the details of the program are unknown, experts assume that China has been both enhancing and modernizing its forces.⁴⁵ The aim of the modernization is to increase survivability, reliability, safety, and penetrability.⁴⁶ The objective is to maintain a limited but effective second-strike capability to deter first strikes.⁴⁷ The two ways of assuring the aims of the program is mobility of the delivery systems and concealing those systems in underground tunnels in which detection is difficult even with space satellites.⁴⁸ Within this context, the Second Artillery Corps (SAC) has been investing in more reliable and fast solid-fueled, road-mobile ICBMs—the DF-31 and DF-31A.⁴⁹

To further reinforce survivability and retaliatory strike capability, China began developing an undersea deterrent, building of *Xia*-class submersible ship ballistic missile nuclear (SSBN) system and later the more capable *Jin*-class SSBN.⁵⁰ The *Jin*-class SSBN can carry JL-2 submarine-launched ballistic missiles, the upgraded version of the JL-1 that was carried by the *Xia*-class SSBNs.⁵¹ The main objective behind undersea deterrence is to achieve less detection of submarines and more assured penetrability for the SSBN-launched missiles.⁵² With an undersea deterrent and an enhanced and more survivable land-based nuclear arsenal, China should feel more secure in terms of its retaliatory strike capabilities. In other words, the strategic stability between the United States and China appears to be strengthened. However, Chinese officers' and scholars' concerns of a disarming first strike seem to be unabated, with talk about the certainty of uncertainty of a Chinese second strike that serves as deterrence instead of a secured retaliation stance.⁵³

Part of the confusion regarding the robustness of strategic stability is due to Chinese deliberate strategic ambiguity about its nuclear arsenal. Another part of the confusion can be attributed to Chinese fears, which skyrocketed after Pres. Barack Obama's Prague speech and the 2010 *Nuclear Posture Review* (NPR). The Chinese understood America's decreasing reliance on nuclear weapons as being tantamount to a greater reliance on conventional weapons—especially CPGS—where the United States enjoys an undeniable superiority.⁵⁴ Thus, the Chinese regard President Obama's vision for a nuclear-free world as a trap that aims at containing China's rise to power. This thinking is indicative of the Chinese un-

derstanding regarding the utility of their nuclear arsenal, which mainly serves countercoercion purposes.⁵⁵ Another role China assigns to its arsenal is conventional deterrence to prevent US conventional forces from surgically striking C4ISR centers. In a possible crisis scenario with the conventionally superior United States, China will likely try to blur the nuclear threshold through strategies that “leave something to chance,” as is further explained below.⁵⁶ Integrating options of hypersonic weapons into the US and Chinese operational doctrines, in tandem with perceptions on the utility of nuclear weapons and the offensive nature of hypersonic weapons, creates very dangerous escalatory dynamics in the western Pacific.

What Lies Ahead: Integrating Hypersonic Weapons into Operational Doctrine and Escalatory Dynamics

In China, strategic thought has been highly tailored to doctrines and tactics that target superior enemies. The ultimate strategic objective behind the strategy has changed. Whereas in the past, fighting would take place for survival (against the Kuomintang, Japanese, and Soviets), in the contemporary era, fighting against a superior enemy would probably take place to achieve other objectives at the expense of less powerful states. The current strategic situation calls for a strategy against a superior enemy that looks at holding the adversary's forces outside the theater of operations while China can achieve its objectives against minor enemies.⁵⁷

China's fast-paced modernization took place mainly after the Taiwan incident of 1995–96, whereas modernization of the nuclear arsenal started several years before that. Chinese conventional strategies are directed “at interdicting the geostrategic umbilicals that connect the United States to its Asian allies.”⁵⁸ The idea is that China needs to prevent the United States from bringing rearward reinforcement to its allies, while Chinese forces overwhelm the nation's inferior regional adversaries. As former US Pacific Command commander ADM Robert Willard explained, “China's rapid and comprehensive transformation of its armed forces is affecting regional military balances and holds implications beyond the Asia-Pacific region. Of particular concern is that elements of China's military modernization appear designed to challenge our freedom of action in the region.”⁵⁹ Chinese conventional modern-

ization aims to protect Chinese interests in its maritime periphery. Nevertheless, for the first time, such strategies create the conditions for US-Chinese friction to take place, increasing the chance for conventional engagement with the United States.

The A2/AD strategy consists of a wide range of diverse capabilities that aim to raise the cost of entering the theater of operations for the intervening power. As Vincent Alcazar states, A2/AD is a wicked problem for the United States mainly because of its strategic implications that have both military and nonmilitary aspects; inadequate access, curtailed freedom of action, and eroded influence.⁶⁰ For China, the SAC lies at the heart of the strategy, with the new addition of that unit's DF-21D ASBM—the so called “aircraft carrier killer.” Mines, quiet diesel-electric submarines for brown and green water, modernized over-the-horizon radars, and intelligence, surveillance, and reconnaissance that can detect and target mobile military systems as they operate at long distance from the Chinese coast all combine to create a no-go zone for the adversary. This strategy is based on the Chinese approach that puts emphasis on information dominance, intelligence, and manipulating perceptions. Information dominance translates into a high dependence of modern militaries on information flow for the conduct of operations. Disruption of the information flow can result in the collapse of command and control (C2), leaving no coordination on the battlefield. Modern forces need to be prepared to fight in degraded environments where computer networks might be plagued by viruses.

The general objective behind the war effort is not the absolute destruction of the enemy or disarmament but rather the creation of conditions conducive to the achievement of the desired political outcome. The war, as thus conceived, is short and rapid-paced. A2/AD strategies or active defense (in Chinese parlance) are better implemented through the element of surprise and seizing the initiative early through key points and well-targeted strikes.⁶¹ In other words, the strategic rationale is to avoid confrontation with the superior adversary directly while achieving the political objectives the war effort pursues. Instead of direct confrontation, China seeks to target vulnerable points through attacking adversary bases, transportation, logistics, and C4ISR centers.⁶² Roger Cliff, in his testimony before the House Armed Services Committee, explained the six Chinese warfighting principles under that nation's general strategy of A2/AD or counterintervention, as the Chinese call it. Conflated, the six

principles ask for seizing the initiative before the enemy does, launching surprise attacks, conducting preemptive strikes while avoiding direct confrontation, carrying out key-point strikes, and concentrating Chinese force's best capabilities to attack the vital targets early in a conflict.⁶³

From the Chinese perspective, hypersonic weapons reinforce deterrence through the credible threat of targeting US vessels or even bases as far away as Guam in the event of a horizontal escalation. In the long term, China might seek to expand its power projection beyond its immediate periphery. If so, hypersonic weapons could threaten to keep US forces even further away from the Yellow Sea, South China Sea, and East China Sea. The most probable justification behind a possible deployment and use of Chinese hypersonic weapons is related to the effort by China to match US capabilities as a deterrent against American coercion and surgical strikes against Chinese C4ISR.⁶⁴ Nevertheless, the Chinese face the same dilemma: any strike against US bases or vessels will irrevocably provide the basis for a US decision to escalate, something China would prefer to avoid as much as the United States would.

Turning to the US strategy, we know the nation embraces a war-fighting capability aimed at countering an enemy's A2/AD strategy by penetrating defenses and eliminating targets in the interior.⁶⁵ The idea is to destroy the source of the enemy's firepower while degrading its C4ISR. The saturation of the enemy's defenses through coordinated strikes by the US Navy and USAF would allow aircraft and submarines to strike land-based missile systems and C2 centers. Hypersonic weapons hold a great potential in a contested environment, given their survivability against enemy's defenses and the low risk of striking while remaining outside the theater of operations. The Air-Sea Battle (ASB) Concept is intended to inject significant uncertainty into the calculations of adversaries, ideally so conflict does not occur in the first place. This objective of deterring the enemy from initiating acts of aggression is laudable, but it is worth considering escalation management. While ASB is still a work in progress and its future is unclear, some have noted the escalatory dynamics that lurk within the concept itself.⁶⁶ Should deterrence collapse, it is important to keep the conflict as limited as possible, so starting a conflict at the upper end of the escalation ladder would seem to be flawed strategic thinking.

Hypersonic weapons appear to be what both sides are after in terms of seizing the initiative and surgical targeting of key points that lie at the

heart of the adversary's war effort. Surprise at the tactical level as well as preemption in case of an ASAT strike appear to be feasible missions for hypersonic weapons, which could be aimed at crippling the enemy's C4ISR systems. Thus, hypersonic weapons could be a valuable addition in both A2/AD and counter-A2/AD strategies. In the first option, these systems' long ranges help the United States avoid entering the contested zone. Strikes from outside the theater of operations would risk no cost for US forces. For the second strategy, counterintervention missions could be executed with success with hypersonic weapons—the accuracy and speed of which add another layer to the Chinese strategy of keeping US forces outside the theater of operations in accordance with the “using the land to control the sea” concept Andrew S. Erickson and David D. Yang stressed in 2009.⁶⁷ The development of the DF-21D ASBM, with its maneuverable warhead, as one of the first stages of a hypersonic weapon reinforces this assumption.⁶⁸

In this context, both parties appear to have embraced an equally offensive operational thinking that opts for deliberate escalation from some initial level “to gain advantage, to preempt, to avoid defeat, to signal an adversary about its own intentions and motivations, or to penalize an adversary for some previous action.”⁶⁹ The strategy would be based on firm ground if the East Asian context did not lend itself to what Herman Kahn calls “two-sided escalation situations,” where one party sees value in escalating if the other side would not counter the rise.⁷⁰ In a conflict scenario involving two peer competitors and nuclear powers, it is reasonable to assume that both states would be able to reply by ascending the escalation ladder. In other words, no state can sufficiently claim to be capable of achieving escalation dominance where it can credibly negate its adversary's efforts of escalating further as a response to previous actions. No matter how big the preemptive blow is, China cannot hope to prevent additional US forces from engaging, and the same is the case for US strikes. Hypersonic weapons, thanks to their highly flexible nature, can be used for both preemptive and retaliatory purposes and, as explained above, facilitate considerably the execution of such escalatory moves for both parties. Their use and escalatory dynamics, however, cannot be judged in a political vacuum. Thus, the following section looks at the juncture between force posture and crisis stability, while taking into consideration the nature of political objectives sought.

The Use of Hypersonic Weapons in a Conflict Scenario in East Asia: Is a Military Victory Worth Escalation?

Within the operational context described above, the use of hypersonic weapons by both powers is a double-edged sword. From the US perspective, long-range weapons are the enablers or linchpin of any operational plan the armed forces might embrace given the high cost of entering into the adversary's envelope. The main contribution of hypersonic weapons is, therefore, lower cost of implementing surgical strikes against the adversary's critical nodes (C4ISR). Lower cost, high survivability, and accuracy make hypersonic weapons a viable political decision in a conflict scenario. In fact, as mentioned above, targeting C2 centers was one of the weapons' first missions during the Bush administration. The counternuclear mission was directed against rogue states' nuclear weapons, but those same weapons can also be used against states' C2 centers that manage conventional weapons systems. In other words, in A2/AD operational environments, long-range weapons that can be fired from outside the enemy's envelope will acquire further strategic value. Dan Blumenthal explained the concept very succinctly, "the U.S. Air Force and Navy will probably have to 'shoot the archer' rather than the arrow to stop or thin out a missile barrage."⁷¹ The idea goes back to theorists such as B. H. Liddell Hart and his "Strategy of Indirect Approach" or, more precisely, John Warden's "Industrial Web Theory."⁷²

Nevertheless, in any conflict scenario, US civilian leaders need to keep a very clear link between political objectives and military goals, which, in the case of China, will be neither decisive victory nor regime change.⁷³ Even though there is a general tendency for military planners to opt for direct escalatory strategies, in a US-China conflict scenario, such predetermined and rigid strategy paths might have deleterious consequences, forcing both parties into a highly escalatory conflict that could otherwise be avoided.⁷⁴ Put differently, both the Joint Operational Access Concept and Air-Sea Battle concept seem to place the emphasis on a war-fighting concept that seeks to prevent the adversary from escalating instead of influencing its decision to escalate. In other words, military thinking so far has been dominated by the use of brute force, as Schelling would call it, instead of coercive force that leaves the final choice to the opponent.⁷⁵ The latter would be more expedient in a regional conflict scenario where the United States faces a nuclear force while at the same time the objec-

tive at stake does not justify an all-out war effort. That said, any anti-A2/AD strategy must borrow more from a crisis-stability scenario rather than a purely war-fighting one, given that deterrence will be an important part of the war effort. Such an approach comes in tandem with an emphasis on the notion of escalation management to reinforce stability rather than escalation dominance or control, which could come with destabilizing effects.

A RAND report defines crisis stability as the degree to which mutual deterrence between dangerous adversaries can hold in a confrontation.⁷⁶ Crisis management, therefore, is more about deterrence rather than direct confrontation, which makes long-range systems—especially hypersonics—essential parts of crisis management, given that such systems can be brought to bear instantly. The same report assesses the contribution of a wide range of weapons systems to crisis stability based on their levels of flexibility, responsiveness, and capabilities for signaling along with surprise attack. Even though hypersonic weapons are not directly addressed, the report finds that conventionally loaded ballistic missiles are particularly escalation-prone. The finding is based upon their fast deployment and launch capacity that leaves no time for signaling and exacerbates fears of surprise attack.⁷⁷ Given hypersonic weapons' comparative greater reach than ballistic missiles and the weapons' higher speed, the RAND findings apply in their case to an even greater degree.

The deliberate escalation thesis is further questioned when nuclear and conventional C2 centers are not separated but function under the same command. In this case, the escalatory, transitional levels from a conventional conflict to a nuclear, inadvertent escalation are blurred. Put differently, nuclear strategy becomes part of conventional fighting through the notion of inadvertent escalation. It is no accident that experts have named hypersonic strike capacity as the capability the United States might never be able to use.⁷⁸ The concern is mainly due to the notions of target indistinguishability, which is reinforced by the weak and blurred firebreaks between conventional and nuclear deterrence in Chinese strategic thinking.⁷⁹ Thomas Christensen, based on his reading of the *Science of Second Artillery Campaigns*, concludes that China's use of nuclear weapons is not confined to a deterrent force versus only nuclear strikes but also conventional ones. He calls this concept "double deterrence."⁸⁰ China capitalizes on the SAC's very powerful control of both conventional and nuclear delivery systems. After having stud-

ied American campaigns in both Iraq (1991) and Kosovo (1999), the Chinese are very familiar with the idea of surgical strikes that aim to harm the adversary's source of power or enablers of operations.⁸¹ The control of both conventional and nuclear delivery systems deliberately aims at deterring conventional strikes—the great escalatory dynamics of which the adversary should acknowledge before using such systems. In other words, target distinguishability concerns should prevent the United States from targeting the missiles of the SAC, given that China might be left with the impression of a preemptive strike on the country's nuclear arsenal.⁸² The strategic idea pertains to what Barry Posen calls inadvertent escalation. However, this appears to be “manufactured” by China through the strategic location of nuclear weapons close to C2 centers or any other valuable targets for which neutralization would be prioritized within the context of surgical strikes.⁸³ Using Thomas Christensen's words, “Jervis's ‘threat that leaves something to chance’ requires a slippery slope between conventional and nuclear warfare . . . without the stronger conventional and nuclear power simply choosing to attack with its nuclear weapons.”⁸⁴

After having matched political objectives to military goals, one could conclude that targeting the archer might hide serious escalatory dynamics and paradoxically end up being an obstacle to a successful US intervention rather than an enabler. Hypersonic weapons might appear to lower the cost for such operations initially, but one needs to account for possible responses coming from the adversary. The assumption is couched in the eventuality of escalatory steps coming from the adversary that will threaten to raise the cost of the military effort to levels disproportionate to the political objectives sought. In other words, operational plans and strategic doctrines create the boundaries within which political choices take place. In cases where the military effort seeks to protect political objectives of limited nature, as is the case in the western Pacific, any decision to follow an escalatory approach against a nuclear enemy needs to be further examined and assessed based on its political rationale. As Michael Kraig and Leon Perkowski have advocated, the three main concepts that should be the drivers of US force posture and employment are summarized as strategic accommodation, protracted crises, and limited geopolitical goals.⁸⁵ Seen through this spectrum, an operational doctrine based on a force posture that leads to a quick total victory through the application of overwhelming force can be mis-

matched to the limited political objectives the doctrine seeks to secure. If military plans cannot strike the right balance between inaction and a risky, escalatory option, inaction may well be the better choice—even though it fails to safeguard US interests.

Based on the aforementioned, hypersonic weapons' operational role must be assessed not only on their contribution to achieving military objectives but also escalatory potential. The suggestion draws substance from both powers' interest in avoiding escalation while at the same time using coercion to achieve their objective before deescalation becomes an imperative. Put differently, given that both countries would prefer not to cross the Rubicon, the actual or threatened use of hypersonic weapons needs to be integrated into operational doctrine that is more influenced by crisis-stability elements instead of a war-fighting mentality that aims to defeat the adversary. Such an approach must progress along the lines of a degraded application of force married to signaling and diplomatic negotiations. A degraded application of force would initially capitalize on the use of platforms that signal resolve and could be discernible by the adversary—such as surface vessels and aircraft—married to what Kraig and Perkowski call “strategic denial” at the military level and “persistent denial” at the operational level. The concept the two authors suggest encompasses the “ability to credibly and capably impose negative costs without dramatically escalating the political stakes involved,” which would facilitate negotiations and subsequently deescalation.⁸⁶ The main idea is to be able to negate any benefits the adversary aims to reap at each escalatory level while at the same time projecting a similar capability for higher levels of escalation in an effort to dissuade further intensity. Hypersonic weapons should not be part of the initial plans because both sides will want to assuage fears of surprise attacks that could irrevocably harm diplomatic negotiations and pave the way for uncontrolled escalation. Civilian control needs to be robust, and it is within this context that a degraded strategy can prioritize long-term political objectives over short-term military goals. Options that offer irrevocable damage without leaving room for signaling or adjusting according to diplomatic processes must be relegated to the final stages of the conflict provided deescalation is not achieved.

Conclusion

As far as interstate relations go, the role of new technologies—with special regard to technology adoption—has great impact on escalatory dynamics in East Asia. With regard to the former, the development of long-range, fast, and accurate weapons systems has the potential of changing offensive and defensive dynamics, rendering a first strike easier, while lowering the cost of deep surgical strikes on the adversary's territory. Such a systemic change has direct implications for each country's operational doctrines and, consequently, for the protection of their political objectives. The development of hypersonic weapons in the United States within the context of the CPGS program was created with a high focus on counterterrorism and rogue states. The program's operational objectives and missions, as such evolved, resulted in a higher emphasis on A2/AD environments. The missions of CPGS are influenced by systemic dynamics and threat perceptions in the United States as they are reflected in official documents such as the *QDR* and *NPR*. However, China's threat perceptions and reactions to US investments in both BMD and CPGS show that Chinese nuclear modernization is linked to American development of BMDs in tandem with CPGS options. While China's modernization of the country's nuclear arsenal is an attempt to assure second-strike capability in the event of a disarming first strike—a capability highly reinforced by CPGS—Chinese pursuit of hypersonic weapons is mostly part of its conventional A2/AD strategy. Global power projection might appear to be a legitimate goal to pursue in the future depending on political considerations. In the short to medium term, China has been focusing on development of weapons systems that enable regional power projection. Within this context, hypersonic weapons can achieve operational goals that will reinforce China's multiple layers of A2/AD strategies.

China's A2/AD strategy notwithstanding, enhancing the nation's nuclear arsenal would make one think strategic stability is reinforced. Paradoxically, this does not seem to be the case, due to China's deliberate hyphenation of the conventional to nuclear level of escalation. The Chinese strategy is predicated upon ensuring freedom of maneuver and action for its forces along with preventing the United States from using its own power projection over Chinese territory. Along these lines, the Chinese SAC has developed the concept of dual deterrence, which regards nuclear forces as capable of deterring both nuclear and conven-

tional conflicts through reinforcing the already problematic dynamic of target indistinguishability. In other words, the SAC suggests a strategy that manufactures the eventuality of an inadvertent escalation through keeping both conventional and nuclear missiles under the same command. China creates a slippery slope for the United States, with the aim of deterring American forces from intervening due to high probability of escalation, unpredictability, or even uncontrollability of conflict dynamics. The result of the Chinese strategy in tandem with the possibility of US surgical strikes of C2 centers within the context of the ASB concept creates highly escalatory potential of every conflict scenario in East Asia.

Finally, many journalists have already called the hypersonic weapons diffusion an arms race between the United States and China. Whether this is true or not will be judged in the future, given that it is still too early to say with certainty if this is the case. Nevertheless, one could argue more easily that at least the potential for an arms race is present. Arms-race potential, married to acute threat perceptions and blurred escalatory thresholds, make the region an especially daunting place to manage future US-China friction. ■■■

Notes

1. James M. Acton, *Silver Bullet: Asking the Right Questions about Conventional Prompt Global Strike* (Washington, DC: Carnegie Endowment for International Peace, 2013), 4, <http://carnegieendowment.org/files/cpgs.pdf>.

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On the Future of Order in Cyberspace

Christopher Whyte

Abstract

This brief response takes aim at the theoretical determinism present in the building blocks of James Forsyth and Billy Pope's work. Reference to a variant of political realism that emphasizes the coordinative nature of international society brings forward several potential problems for scholars and strategic planners attempting to move beyond the authors' work in the future. In particular, overemphasis on the definitive power of state functionality online runs counter to conventional wisdom on the developmental nature of cyberspace as societally horizontal in nature. While this does little to affect the final argument, there are significant consequences in lessons that actors might take and apply to policy production and operational planning efforts. Another critique of Forsyth and Pope's main argument has to do with their assertion that the distribution of power in international affairs is likely to shift from unipolarity to multipolarity. A side effect of their overreliance on the notion of anarchy, competition, and social order in international politics is that such thinking ignores both recent history and more recent scholarship on the balance of power in world politics.



These days, few areas of scholarship and analysis capture the attention of policy makers and academics in the security studies field as effectively as does the broad cyberspace and national security enterprise.

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One needs only look to recent events—notably, official statements that cybersecurity has become the number one concern in military planning and development and the major digital assaults against North Korea's online infrastructure—to see the degree to which security policy is often synonymous with cyber policy.

In a recent edition of this journal, James Forsyth and Billy Pope outline and assess a significant question that links digital developments in national security to international politics: “Will international order—the kind that is essential to sustain the elementary goals of the society of states—emerge in cyberspace?”¹ They argue that order in all things cyber is inevitable due to the shifting dynamics of state interactions in world politics. Order derives in different ways from dynamics of power and competition, particularly competition over issues of sovereignty.² The inevitability of order between states in cyberspace, they argue, comes from the fact that power and the framework of competition are always—explicitly or otherwise—being negotiated among states. Thus, particularly as the international system moves from a unipolar format to a multipolar one, great powers will have no choice but to cooperate and “create rules, norms and standards of behavior to buttress” the formation of a broader new political order.³

Forsyth and Pope's contribution to the burgeoning scholarship on cybersecurity as a facet of international security is extremely welcome. Few enough scholars have turned their attention to issues of cyberspace and national security beyond the technical or the organizational, and the authors' article makes a strong argument about the interconnection between state auspices and the trajectory of cybersecurity trends. Notably, Forsyth and Pope's argument possesses appropriate scope to accommodate and mitigate a large number of potential critiques, many of which have become commonplace in emergent debates on digital affairs. For the authors, “cyber order” does not mean harmony in digital security interactions, and there is no attempt to graft their assertion regarding regime inevitability onto existing international order. The normative make up of a future regime cannot be known and, beyond arguing that norms and rules will likely emerge based around minimal standards of permissible interactions, there is no effort—rightly so, in my opinion—to describe in detail what the “normalization” of cyber in world politics might look like.

However, quite apart from the reasonable and defensible conclusions of their piece, it seems important to put the assumptions that drive Forsyth and Pope's analysis under the microscope. While their argument appears robust in the face of obvious criticism—that it proposes to “solve” cyber concerns, for example, or that it fails to consider the “extraordinary” nature of the online domain—the implications of it derive from particular theoretical assumptions about the nature of power and actor capabilities in the international system. Value to be drawn from such work in the pursuit of policy-relevant assumptions or in strategic understanding of various cyber developments essentially relies on the strength of the merits of broad assessments of the dynamics of world politics. In other words, moving beyond the general argument in research or policy making requires reference to the assumptions made in the piece about the nature of world politics and the disposition of digital developments. Thus, a debate on conceptual precepts is critical; otherwise, the scholarly enterprise on cyberspace and international security stands to accept the risks of rigid parametrization—for example, accepting one set of perspectives on the dynamics of world politics over alternatives—of analysis beyond the scope of mainstream work in international relations.

The remainder of this brief response takes aim at the theoretical determinism present in the building blocks of Forsyth and Pope's work. Reference to a variant of political realism that emphasizes the coordinative nature of international society brings forward several potential problems for scholars and strategic planners attempting to move beyond the authors' work in the future. In particular, overemphasis on the definitive power of state functionality online runs counter to conventional wisdom on the developmental nature of cyberspace as societally horizontal in nature. While this does little to affect the final argument, there are significant consequences in lessons that might be taken and applied to policy production and operational planning efforts. Moreover, the poorly justified assertion that the international system is undergoing, or is likely to undergo, transition toward a multipolar distribution of power requires further explication. Thus far, it seems fair to suggest that comprehension of the nuance of cyber dynamics depends on understanding the mechanical (both political and technical) nature of digital developments. Given this, the nature of system constraints under a different future political order, such as state-centrism or issues of polarity, significantly affects the degree to which any regime on cybersecurity

might reflect the power dynamics of interstate relations. By contrast, prominent alternatives of future political order might suggest a radically different institutional or societal basis for a normative cyber regime. After all, different political developments in the aggregate lead to different governance structures, which mean different nodes of interaction for actors looking to build a regime. Again, these points do not contradict the high-level argument made by Forsyth and Pope, but the points are worthy of significant consideration as determinants of the utility of scholarly work about future order in cyberspace.

State-Centrism: A Limiting Assumption

Forsyth and Pope, in outlining the realist perspective on order in world politics, refer principally to the societal view of the anarchic international system presented in Hedley Bull's famous 1977 work.⁴ In *The Anarchical Society*, Bull argues that anarchy drives international politics but is not the bottom line in determining state behavior. Anarchy does incentivize competitive political behavior that leads to the construction of international order, but thereafter, actors invariably respond to social cues present in the composition of power politics to coordinate with peer competitors. The result is a dynamic form of normalized modes of interaction—in essence, a “society” that, of course, takes on different shapes depending on the conditions of history. Actors within the system are motivated to coordinate on a number of fronts, including the preservation of the broader political order itself and of the “rules of the road” that govern interaction. This general understanding of the shape of cycles in world politics forms the first of two predeterminant implications of Forsyth and Pope's argument.

An appropriate criticism of reliance on the societal view of world politics can be found in Bull's own 1977 work and has some relatively significant implications for the utility of Forsyth and Pope's argument. Bull argued, quite apart from the state-centric system he and others tended to describe in their discussions of anarchy and political behavior, that the international system is likely to experience a complexification of processes as state power erodes.⁵ New political actors possessed of new means of social construction and power projection will increasingly tax the ability of states to affect governance outcomes across the highest levels of politics in domestic and international affairs. An obvious example

of this, a prominent feature of the global agenda for a decade and a half now, would be transnational terrorist networks that leverage global information and propaganda techniques to undermine traditional national integrity. In terms of the development of cyberspace, the erosion of state power manifests in the capacity of nonstate actors to achieve far-reaching effects online, the reliance of governments on private industry as part of a “new” national security paradigm, and more.

Though it would be an overreach to describe today’s international system as one defined by “new medievalism,” it is certainly the case that aspects of Bull’s articulation of the power erosion trend resonate with a brief empirical glance at the trajectory of major issues in the global agenda in recent years. Indeed, even if one were to take a position opposing the new medieval perspective, such as Anne-Marie Slaughter’s vision of world order as increasingly network-based, one still must admit the sources of authority in world affairs have diversified and continue to do so today.⁶ Additionally, while neither Bull nor Slaughter would argue that states are an inappropriate bellwether of political trends today, understanding future order as one driven by network interactions and transnational, nonstate actions *as well as by state processes* yields significantly different implications for organizations and countries—particularly militaries—that seek to adapt to meet future challenges.

Taking the development of military doctrine and organizational capacity as an example, the foundation of assessments of future cyber order as based on a networked, transnational set of global conditions instead of an institutional, state-centric set of conditions has several obvious implications. Programmatic outreach for the purposes of intermilitary cyber cooperation, though still focused in several obvious cases on major powers, might instead benefit from a structural design that emphasizes low-level, broad-scope attempts to interface with local security infrastructure around the world. After all, governance structures are likely to be markedly different in a world in which authority on security affairs continues to fragment (unlike the great power-centric vision outlined by Forsyth and Pope). Programmatic points of interaction would necessarily be different, and strategic planning would have to accommodate the restructuring of public-private and governmental global operations consistent with the need to line up with a markedly diffuse network of foreign counterparts.

Moreover, as future military campaigns using cyberweaponry in support of regular forces might be expected to increasingly mirror recent trends towards antimilitant or unconventional military forces centered on select urban environments, it seems logical that military forces should eschew a centralized combatant command for cyber operations aimed at supporting conventional assault in favor of a distributed set of commands attached to particular service outfits. While some countries, such as the United States, might be able to accommodate a large enough set of operational structures to meet both traditional and nontraditional mission imperatives, most states will have to prioritize appropriately. Additionally, there is wisdom in adopting the assumption that partner or target authorities for combat, training, or other operations in years to come will increasingly be regional or local in nature, as even state authorities will necessarily devolve capacity as appropriate to deal with decentralized issues of cyber governance and cybersecurity.

Polarity: A Potential Incentive to Avoid Great Power-Based Order Online

Another critique of Forsyth and Pope's main argument has to do with their assertion that the distribution of power in international affairs is likely to shift from unipolarity to multipolarity. A side effect of their overreliance on the notion of anarchy, competition, and social order in international politics is that such thinking ignores both recent history and more recent scholarship on the balance of power in world politics. This does not mean to suggest the authors ignore the present state of global politics. However, the framework they construct is reminiscent—for obvious reasons—of the structural realism of the 1960s and 1970s. A variety of updated analyses of determinants of power distributions in global affairs offer alternative possible trajectories for future power dynamics that could have major implications for policy makers and strategic planners in the future.

For example, the structural realism of Kenneth N. Waltz and, in broad terms, Hedley Bull dictates that a system hegemon invariably suffers the effects of balancing from nonpeer competitors in the international system as they try to deal with the outweighed distribution of power in world politics.⁷ Balancing can occur internally or externally and through a number of different means. During the past 35 years, work on soft bal-

ancing and alliance politics that seeks to explain the dynamics of exactly this type of behavior has developed within the international relations field.

The issue with the assumption that other states are balancing against the United States—even in granular terms that do not interfere with enjoyment of the public goods of the current international system—is that, according to some, American power continues to present in such a way as to discourage balancing. Stephen G. Brooks and William C. Wohlforth note that unipolarity holds and is likely to continue to hold on almost every front.⁸ American military supremacy is remarkable, even in an era where commitments to meeting security challenges have spread forces relatively thin. Military spending is massive and yet remains a drop in the economic pond that is America's national income potential. Likewise, the natural advantages of isolation in North America continue to protect the country from threats on a number of fronts. Against those who argue that America's reputation has suffered from protracted wars in the Middle East, Brooks and Wohlforth show that this reputation is actually a multipronged phenomenon and that the American reputation—in particular, its reputation as global leader—remains intact and vibrant across many different issues including trade and human rights. Against those who argue that issues of institutional legitimacy will undoubtedly prove to be a drag on American unilateralism, Brooks and Wohlforth assert that leadership on global issues continues to compensate for the “bending” of rules in the American case. Unipolarity is not only a fact; it is also likely an enduring and relatively stable condition for world politics.

To any organization, agency, or service attempting to develop doctrine regarding the future shape of challenges and resources on cyberspace and cybersecurity issues, this one alternative to the “unipolarity naturally gives way to multipolarity” perspective provides a glimpse of potential problems that arise from mislabeled foundational baselines. The literature on the effects of unipolarity on international politics provides a number of unusual hypotheses and predictions regarding the motivations of secondary “great” powers and nonstate groups around the world. Nuno P. Monteiro argues that low-level conflict is almost inevitable under unipolarity, as regions and specific lesser actors react to shifts in unipole sponsorship and oversight.⁹ Unipolar engagement polarizes regional actors that cannot find other states with which to align,


while disengagement maintains only system-level assurances about security and leaves regional actors desperate to secure local security, often against nonstate actors that are motivated by a lack of a coherent regional security infrastructure.

The unipolar baseline differs significantly from a multipolar or transitional world in which government entities might safely construct strategies for development and engagement via reference to the assumption that peer institutions abroad respond to the same international political dynamics. For US military and other governmental services, engagement on cyberspace issues is unlikely to fit with the picture of great power politics presented by Waltz, Bull, and others. Strategic planners might again find value in adopting a fragmented programmatic approach to force structuring that emphasizes limited theater engagements with cyber support. Likewise, intelligence and diplomatic outreach will necessarily have to work with region-specific entities responsible for information infrastructure management, whether these be state governments, local authorities, market entities, or not existent.

Conclusion

International order in cyberspace is, indeed, inevitable. One might say that about most broad-scoped phenomena in world politics, of course, but Forsyth and Pope have done the emerging field of cybersecurity research a favor in flouting the trend to treat digital developments as “extraordinary.” Normative and rule-based standards of behavior regarding cyber will undoubtedly emerge in the international system over time, and those concerned with particular digital threats to national security should expect the task of conceptualizing cyberspace in the context of trends in global affairs to ease in decades to come.

In terms of the usefulness of such an expectation, however, the nature of international politics beyond cyberspace matters a great deal. Particularly with cyber, where technical developments and agent-specific capacity significantly rests beyond the auspices of high-level state decision-making processes, international order and subsequent constraints on state behavior might not result from the distribution of power and the nature of interstate competition in the international system. Analyzing the digital domain in the context of world affairs beyond traditional structural perspectives is necessary if scholars, analysts, and policy plan-

ners aim to extract any value from such a basic understanding of the trajectory of the political outgrowths of technical evolutions. 

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Notes

1. James Wood Forsyth Jr. and Billy E. Pope, "Structural Causes and Cyber Effects: Why International Order is Inevitable in Cyberspace," *Strategic Studies Quarterly* 8, no. 4 (Winter 2014): 113–30.

2. *Ibid.*, 114–19.

3. *Ibid.*, 121–23.

4. Hedley Bull, *The Anarchical Society: A Study of Order in World Politics* (London, UK: MacMillan, 1977), 335.

5. Collier and Mahoney (1996) coined the phrase complexification to reference the unnecessary complexity added to conceptual notions by social scientists in the quest to build the tools necessary to generate inference and knowledge. See David Collier and James Mahoney, "Insights and Pitfalls: Selection Bias in Qualitative Research," *World Politics* 49, no. 1 (October 1996): 56–91.

6. Anne-Marie Slaughter, "The Real New World Order," *Foreign Affairs* 76, no. 5 (September–October 1997): 183–97.

7. Kenneth N. Waltz, *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979), 256.

8. Stephen G. Brooks and William C. Wohlforth, *World Out of Balance: International Relations and the Challenge of American Primacy* (Princeton, NJ: Princeton University Press, 2008), 248.

9. Nuno P. Monteiro, "Unrest Assured: Why Unipolarity Is Not Peaceful," *International Security* 36, no. 3 (Winter 2011/2012): 9–40.

Why International Order in Cyberspace Is Not Inevitable

Brian M. Mazanec

Abstract

James Forsyth and Billy Pope argue that great powers will inevitably cooperate and establish rules, norms, and standards for cyberspace. The foundation of their argument is that such an outcome is inevitable because “great powers will have no choice but to cooperate . . . [to] soften the harsh effects of multipolarity and oligopolistic competition.” While it is true that increased competition may create incentives for cooperation on constraining norms, the history of norm evolution for other emerging-technology weapons indicates that such an outcome is unlikely. Forsyth and Pope postulate that the advent of cyberwarfare poses such a range of challenges to states that constraining norms will inevitably take root. On the contrary, norm evolution theory for emerging-technology weapons leads one to conclude that constraining norms for cyberwarfare will face many challenges and may never successfully emerge.



James Forsyth and Billy Pope’s article “Structural Causes and Cyber Effects: Why International Order is Inevitable in Cyberspace” in the Winter 2014 edition of *Strategic Studies Quarterly* addresses a critical question regarding the unfolding age of cyber conflict: will constraining international norms for cyberwarfare emerge and thrive? This is a pivotal question, as highlighted by recent testimony from Director of National Intelligence James R. Clapper, when he stated “the growing use of cyber capabilities . . . is also outpacing the development of a shared understanding of norms of behavior, increasing the chances for miscalculations and misunderstandings that could lead to unintended escalation.”¹ In responding to this question, Forsyth and Pope argue

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that great powers will inevitably cooperate and establish rules, norms, and standards for cyberspace.² The foundation of their argument is that such an outcome is inevitable because “great powers will have no choice but to cooperate . . . [to] soften the harsh effects of multipolarity and oligopolistic competition.”³ While it is true increased competition may create incentives for cooperation on constraining norms, the history of norm evolution for other emerging-technology weapons indicates that such an outcome is unlikely.

Forsyth and Pope postulate that the advent of cyberwarfare poses such a range of challenges to states that constraining norms will inevitably take root. On the contrary, norm evolution theory for emerging-technology weapons leads one to conclude that constraining norms for cyberwarfare will face many challenges and may never successfully emerge.

Some of these challenges have been presented by the advent of the other emerging-technology weapons in historic cases such as chemical and biological weapons, strategic bombing, and nuclear weapons. An analysis of these three historic examples offers valuable lessons that lead to the development of norm evolution theory tailored for emerging-technology weapons that can then be applied to cyberwarfare to better evaluate whether or not the authors’ conclusions are well-founded. This article does exactly that, first by defining emerging-technology weapons and norm evolution theory, then briefly reviewing the current state of international norms for cyberwarfare. Next, it illustrates norm evolution theory for emerging-technology weapons—grounded in the three historic case studies—and prospects for current norms among China, Russia, and the United States. Third, it presents a refined theory of norm development as a framework to evaluate norm emergence that contradicts the Forsyth and Pope thesis. This argument leads to the conclusion that a constraining international order in cyberspace is far from inevitable.

Emerging-Technology Weapons and Norm Evolution Theory

Emerging-technology weapons are weapons based on new technology or a novel employment of older technologies to achieve certain effects. Given that technology is constantly advancing, weapons that initially fall into this category will eventually be recategorized as still newer tech-

nologies develop. For example, the gunpowder-based weapons that began to spread in fourteenth-century Europe would clearly have been classified as emerging-technology weapons in that century and perhaps in the fifteenth century, but eventually those weapons were no longer novel and became fairly ubiquitous.⁴ Chemical weapons, up to the early twentieth century, were considered an emerging-technology weapon. Likewise, strategic bombing, up to World War II, also falls into this category. Nuclear and biological weapons were considered emerging-technology weapons during World War II and the immediate years that followed. Today, cyberweapons used to conduct computer network attacks (CNA) are emerging-technology weapons. Forsyth and Pope emphasize “it is useful to recall how other security regimes developed” and even allude to some of these specific historical examples as possible avenues for developing helpful analogies.⁵ Their approach is reasonable, but a systematic review of these historic case studies results in a very different conclusion regarding the prospect for constraining cyber norms.

In general, norm evolution theory identifies three major stages in a norm’s potential life cycle. These three stages are norm emergence, norm cascade, and norm internalization.⁶ The primary hypothesis of norm evolution theory for emerging-technology weapons is that a state’s self-interest will play a significant role and a norm’s convergence with perceived state self-interest will be important to achieving norm emergence and a state acting as a norm leader. It further mentions that norms are more likely to emerge when vital actors are involved, specifically key states acting as norm leaders and norm entrepreneurs within organizations. The United Nations (UN) and the North Atlantic Treaty Organization (NATO) are the two primary intergovernmental bodies and organizations currently being used to promote emerging norms for cyberwarfare. Additionally, there are some other key multilateral efforts to encourage the development of cyber norms, such as the London Conference on Cyberspace and academic cyber norms workshops.

Current Cyber Constraining Norms

Cyberweapons are emerging-technology weapons and have only existed for a short time. There is relative secrecy surrounding most cyber operations with no extensive record of customary practices of states.⁷ Forsyth and Pope make this very point when they highlight that cyber-

space has resulted in a new form of war that “no one can see, measure, or presumably fear.”⁸ While much of the hostile cyber activity to date is not true cyberwarfare but instead is computer network exploitation (CNE) and cybercrime, this should not be interpreted as a customary practice against conducting CNA-style cyberattacks.⁹ Instead, it is evidence of how early we are in the cyber era—akin to the absence of strategic bombing in the first decade of the nineteenth century. Advanced cyberwarfare is only now becoming possible, and a robust target set is emerging as societies become more immersed and dependent on cyberspace. In the absence of firmly established norms governing cyberwarfare, states may also be exhibiting an abundance of caution as they slowly test the limits of what the international community deems acceptable behavior in cyberspace. Of the major CNA-style attacks that have occurred, six are summarized in table 1, including what those attacks may portend for acceptable norms of behavior in cyberspace. The suspected sponsor, target, and effect of the attack are also listed.¹⁰

Table 1: Selected CNA-style cyberattacks: target, effect, and suspected sponsor

<i>Attack Name</i>	<i>Date</i>	<i>Target</i>	<i>Effect</i>	<i>Suspected Sponsor</i>
Estonia	April–May 2007	Commercial and governmental web services (civilian target)	Major denial of service	Russia
Syrian air defense system as part of Operation Orchard	September 2007	Military air defense system (military target)	Degradation of air defense capabilities allowing kinetic strike	Israel
Georgia	July 2008	Commercial and governmental web services (civilian target)	Major denial of service	Russia
Stuxnet	Late 2009–2010, possibly as early as 2007	Iranian centrifuges (military target)	Physical destruction of Iranian centrifuges	United States
Saudi Aramco	August 2012	State-owned commercial enterprise (civilian target)	Large-scale destruction of data and attempted physical disruption of oil production	Iran
Operation Ababil	September 2012–March 2013	Large financial institutions (civilian target)	Major denial of service	Iran

These six CNA-style attacks collectively provide some insight into the emergence of international norms through the customary practice of cyberwarfare. There are three main takeaways from the attacks. First, the majority (four of six) of the attacks were aimed at civilian targets, showing that a norm constraining targeting to explicitly military targets or objectives has not yet arisen. Second, to the extent attacks did strike exclusively military targets, they were suspected to have been launched by Western nations (the United States and Israel). This seems to indicate there may be competing and, in some cases, more permissive norms regarding cyberwarfare depending on which nation is conducting it. This is consistent with the expected competitive environment in the early days of norm emergence. Third, experience with cyberwarfare is very limited at this point. No known deaths or casualties have yet resulted from cyberattacks, and the physical damage caused, while impacting strategically significant items such as Iranian centrifuges, has not been particularly widespread or severe.

While the preceding information makes it apparent that few, if any, normative constraints governing cyberwarfare currently exist, increased attention and discussion—among other things—have helped spurn various efforts to reach consensus on and codify emerging norms for cyberwarfare. However, overall cyber conflict is becoming more destructive, remaining largely covert with limited public discussion, involving an increasing and continued mix of state and nonstate actors, and more US, Russian, Chinese, and Iranian (among others) offensive cyber operations.¹¹ More destructive and sophisticated cyberweapons are likely to be developed, in part due to the success and example provided by Stuxnet and the interest in and proliferation of cyberweapons it has spawned—along with the absence of constraining norms on developing such weapons. As a result, the cost of cyberweapons is likely decreasing as they proliferate and are increasingly employed. Also, cyberwarfare involves a combination of characteristics that make it particularly attractive to states and encourage proliferation of cyberweapons. These special characteristics include the challenges of attribution, the multiuse nature of the associated technologies, target and weapon unpredictability, potential for major collateral damage or unintended consequences, questionable deterrence value, frequent use of covert programs to develop such weapons, attractiveness to weaker powers and nonstate actors as an asymmetric weapon, and use as a force multiplier for conventional mili-

tary operations.¹² They also help explain why the United States, in spite of its interest in developing constraining cyber norms, has continued to pursue secretive military and intelligence CNA capabilities during the past 10 years.¹³ Thus, cyberwarfare capabilities will play an increasingly decisive role in military conflicts and are becoming deeply integrated into states' doctrine and military capabilities. Over 30 countries have taken steps to incorporate cyberwarfare capabilities into their military planning and organizations, and the use of cyberwarfare as a "brute force" weapon is likely to increase.¹⁴ Military planners are actively seeking to incorporate offensive cyber capabilities into existing war plans, which could lead to offensive cyber operations playing an increasingly decisive role in military operations at the tactical, operational, and strategic levels.¹⁵

The Case for Norm Evolution Theory

If the current trends continue, what does norm evolution theory for emerging-technology weapons predict regarding the development of constrictive international norms? Will a consensus of powerful states, as argued by Forsyth and Pope (citing G. John Ikenberry), seek to conserve power through institutional solutions, for example norms, to make their "commanding power position more predictable and restrained"?¹⁶ Or, will norm evolution theory as applied to emerging-technology weapons predict the opposite? The latter is more probable, based on a modified version of norm evolution theory tailored specifically to emerging-technology weapons and historic case studies. The three examples of chemical and biological weapons, strategic bombing, and nuclear weapons are particularly salient historical case studies when considering norm evolution for cyberwarfare due to a variety of reasons.

Chemical and biological weapons and cyberweapons are nonconventional weapons that share many of the same special characteristics mentioned earlier, with significant international security implications. These borderless domain weapons are also attractive to nonstate actors or those seeking anonymity resulting in a lack of clarity regarding attribution. Forsyth and Pope make this point when they mention that nonstate actors "will continue to pose grave challenges to international order within cyberspace."¹⁷

Strategic bombing—particularly with the advent of airpower as an emerging-technology weapon and the early use of airplanes to drop bombs on cities—forced states to grapple with a brand new technology and approach to warfare—as is now the case with cyberwarfare. As with chemical and biological weapons, strategic bombing shares some special characteristics with cyberwarfare. Strategic bombing made civilian populations highly vulnerable, was difficult to defend against, and used technology that also had peaceful applications (air travel and transport)—all of which can also be said about cyberwarfare today. The effort to constrain strategic bombing through normative influences was mixed and at times completely unsuccessful, which makes it particularly well suited as an exemplar of the limits of norms and how other factors may impede or reverse norm development.

Finally, nuclear weapons, like airpower before them and perhaps cyberweapons today, presented states with a challenge of a completely new and emerging war-fighting technology. Nuclear weapons and cyberweapons, like the other emerging-technology case studies, share many of the same special characteristics with significant international security implications, particularly the potential for major collateral damage or unintended consequences (due to fallout, in the case of nuclear weapons) and covert development programs. Because of these common attributes, lessons regarding norm development can be learned and a framework developed that is applicable to predicting the prospects of constraining norms as a tool to address the use of cyberweapons. While at first glance these three historic case studies seem to validate the Forsyth-Pope argument that “great powers will have no choice but to cooperate,” a careful application of the framework based on cyberwarfare predicts a less-promising outcome.¹⁸

Examining how norm evolution theory, informed by the three historical case studies mentioned above, specifically applies to norms for emerging-technology weapons will allow for a more informed prediction regarding the prospects of norm emergence for cyberwarfare. When these three case studies are considered, the primary reason for developing constraining norms for emerging-technology weapons is the perception among powerful or relevant states that such norms are in their national self-interest. That is, a direct or indirect alignment of national self-interest with a constraining norm leads to norm emergence, and the extent to which it is aligned with key or powerful states percep-

tion of self-interest will determine how rapidly and effectively the norm emerges. The role of national self-interest as the primary ingredient leading to norm emergence also helps explain why, when challenged with violations of a young and not-yet-internalized norm, a state is quick to abandon the norm and pursue its material interest by using the previously constrained emerging-technology weapon, as was seen with both chemical and biological weapons and strategic bombing in World War I and strategic bombing in World War II.

Prospects for Cyberwarfare Norms

The key principle of norm evolution theory for emerging-technology weapons is that norm emergence is more likely to occur when powerful, relevant actors are involved, specifically key states acting as norm leaders and norm entrepreneurs within organizations. As mentioned earlier, there are an assortment of intergovernmental bodies and organizations currently being used by a variety of states to promote various emerging norms for cyberwarfare. Through these organizations, varied actors, motivated by a number of factors and employing a range of mechanisms, have promoted various candidate cyber norms, including a total prohibition on cyberweapons and cyberwarfare, a no first-use policy, or the applicability of the existing laws of armed conflict to cyberwarfare. Thus, norm evolution theory would seem to interpret this as a sign of progress for norm emergence. However if one examines these efforts more closely, the prospects are less hopeful.

Powerful States, Constraining Norms, and Self-Interest

Powerful self-interested state actors will play a significant role in norm emergence. Additionally, the perceived state self-interest will be important for norms to emerge and for a state to become a leader of a particular norm. Successful norm emergence requires states as norm leaders. Whether or not, as Forsyth and Pope say, “the structure of international politics will revert to its historical norm, multipolarity,” state calculations of self-interest are unlikely to converge in favor of a constraining cyber norm.¹⁹ After all, there were eight great powers in 1910, and that complicated, rather than fueled, the convergence of a constraining norm for strategic bombing. Since there is generally less exposure or understanding surrounding cyberweapons and actors have different rates of weapon

adoption and cyber vulnerability, states will be reluctant to lead on the issue of norms because they may be unable to determine the utility of such weapons relative to their own interests. However, such calculations are essential if important and powerful states are going to become strong norm leaders and help promote the emerging norm. Additionally, specific to China, Russia, and the United States—the preeminent cyber actors—an analysis of their respective cyber doctrines indicates that there appears to be a perspective that each nation has more to gain from engaging in cyberwarfare than from significantly restricting it or giving it up entirely. Essentially, Forsyth and Pope's optimism that states will adopt a constraining norm based on intense multipolar competition, increasing dependence on cyberspace, and corresponding investments in information technology (IT) infrastructure is unsupported.²⁰

National investments in cyberwarfare capabilities and the development of doctrine and strategies for cyberwarfare provide insight into state perceptions of self-interest and the expectations for behavior and emerging norms for cyberwarfare. So where do state cyberwarfare programs stand today in China, Russia, and the United States? The three key states discussed here are the most significant, due to the breadth and sophistication of their capabilities and activities and the likelihood that these states are serving as the model for many other nations preparing to operate in cyberspace. These states are the key norm leaders in the emerging multipolar world that norm evolution theory identifies as important to achieving norm emergence. Accordingly, reviewing Chinese, Russian, and US interests and approaches to cyberwarfare is essential to predicting norm evolution and validating or refuting the Forsyth-Pope argument that state interest will converge around constraining international norms.

Chinese Interest in Cyberwarfare

China's early activity and interest in cyberwarfare indicate that it likely does not consider the emergence of constraining norms in its self-interest. The country has been largely unconstrained by cyber norms and is preparing to use cyberweapons to cause economic harm, damage critical infrastructure, and influence kinetic armed conflict. As such, it is unlikely to be a vocal norm leader. China is best known for its expansive efforts conducting espionage-style cyber operations. For example, in February 2013, the US cybersecurity firm Mandiant released a study

detailing extensive and systematic cyberattacks, originating from Chinese military facilities of at least 141 separate US-affiliated commercial and government targets.²¹ These attacks have led the US Department of Defense (DOD) to classify China as one of “the world’s most active and persistent perpetrators of economic espionage” and to point out that China is also “looking at ways to use cyber for offensive operations.”²² It is this latter point that is of most interest to this article. China is increasingly developing and fielding advanced capabilities in cyberspace, while its interests in cyberwarfare appear to be asymmetric and strategic.

Russian Interest in Cyberwarfare

Like China, Russia’s early cyberwarfare activity—especially the attacks on Estonia and Georgia—indicate that it is largely unconstrained by restrictive cyber norms and is preparing to use cyberweapons in a wide range of conflicts and against a variety of targets. Russia likely does not consider the emergence of constraining norms in its self-interest. As such, one would think the nation unlikely to be a vocal norm leader. However, Russia has been a leading proponent of a total ban on cyberweapons. This is similar to the Soviet Union’s efforts early in the nuclear era to demonize US possession of nuclear weapons while simultaneously pursuing such weapons themselves. This helps illustrate how powerful states acting in their own self-interest can inadvertently act as norm leaders while simultaneously flouting the touted candidate norm. However, Russia’s confusing support for fully constraining norms for cyberwarfare (based on its behavior in the UN and proposal for an “International Code of Conduct for Information Security”) may be based on its broader definition of cyberwarfare and the nation’s interest in using a constraining norm to prevent what it perceives as “propaganda” inside Russia and in its near abroad.²³ However, Russia’s position may also be disingenuous, as it was when supporting the Biological Weapons Convention while simultaneously launching a massive, illicit biological weapons program. To achieve any real convergence among the main cyber actors, the authoritarian interest in constraining free speech must be addressed, which could deflate Russian support.

That the Russian Federation has a general interest in cyberwarfare is widely known. However, outside of the Estonia and Georgia attacks, little is known of Russia’s cyber capabilities. Some believe Russia is a “little too quiet” and that the lack of notoriety is indicative of a high level of

sophistication which enables Russian hackers to evade detection.²⁴ That said, there are some indicators of Russian intent as their doctrine now states that future conflict will entail the “early implementation of measures of information warfare to achieve political objectives without the use of military force, and in the future to generate a favorable reaction of the international community to use military force.”²⁵

US Interest in Cyberwarfare

While China is perhaps the noisiest and Russia the most secretive when it comes to cyberwarfare, the United States is the most sophisticated. The United States is in the process of dramatically expanding its military organization committed to engaging in cyberwarfare and regularly engages in “offensive cyber operations.”²⁶ However, unlike Russian attacks and Chinese planning, the United States appears to exercise restraint and avoids targeting nonmilitary assets. This seems to indicate that the United States is acting as a norm leader for at least a certain category of constraining cyber norms, although the nation’s general “militarization” of cyberspace may be negating the norm-promoting effects of this restraint. While the United States has recently developed classified rules of engagement for cyberwarfare, the nation has articulated few, if any, limits on its use of force in cyberspace or response to hostile cyberattacks. For example, the May 2011 *International Strategy for Cyberspace* states that the United States reserves “the right to use all necessary means” to defend itself and its allies and partners, but that it will “exhaust all options before [the use of] military force.”²⁷ Additionally, former US Deputy Secretary of Defense William Lynn clearly asserted that “the United State reserves the right, under the law of armed conflict, to respond to serious cyberattacks with an appropriate, proportional, and justified military response.”²⁸ Ultimately, the US behavior and interest in cyberwarfare indicate that it does not consider the emergence of robust constraining norms in its self-interest.

Leaks Further Impair States Supporting a Constraining Norm

Edward Snowden’s leaks may have introduced more distrust than had already existed among adversaries and allies alike, complicating and hampering a convergence of norms among states. When reporting began on Snowden’s leaked classified documents, including documents outlining offensive cyberattacks, suddenly the spotlight was on US cyber

activity and the breadth and nature of its thus-far secret offensive actions in cyberspace.²⁹

The purported revelations regarding the extent of the National Security Agency's (NSA) cyberintelligence collection efforts led some US allies, such as Germany and Finland, to begin to construct their own independent IT infrastructure, such as fiber-optic cables.³⁰ Additionally, France has launched its own data countersurveillance efforts. Brazil's president, Dilma Rousseff, cancelled a state visit to the United States, decrying the NSA activities as "an assault on national sovereignty."³¹ This led David DeWalt, chairman of the cybersecurity firm FireEye, to predict that there will be increasing "cyber balkanization" with more cybernationalism and less international cooperation.³² The current Snowden leaks alone will likely have an impact on the evolution of constraining cyberwarfare norms; however, more leaks are likely coming. Future leaks could fracture state interests and increase national secrecy of cyberweapon programs and distrust of US intentions and those of other powerful cyber actors. This type of effect was evidenced by a Russian government source claiming in late 2013 that "Washington has lost the moral authority" in cyberspace and that support for the Russian UN First Committee cyber resolution—titled "developments in the field of information and telecommunications in the context of international security"—was growing and the Group of Government Experts (GGE) becoming more Russian-friendly. It appears that powerful support from self-interested actors has not converged on a comprehensive constraining norm for cyberwarfare, and recent developments may make such a convergence less likely.

Secondary Factors Affecting Norm Emergence

Norm evolution theory for emerging-technology weapons also recognizes secondary reasons for development, such as

- coherence and grafting with existing norms;
- permanent establishment of a norm before the weapon exists or is fully capable or widespread;
- threat inflation regarding the possible effects of the weapon often by the private sector via industry and lobbying groups;

- notions that a weapon cannot be defended against, fueling interest in a norm;
- unitary dominance of a single actor with a particular weapon-type that gives said actor significant influence in norm emergence for that weapon-type; and
- delays in proliferation (often due to technological barriers), creating added time for a constraining norm to emerge.

This comprehensive theory of norm evolution for emerging-technology weapons is a framework for predicting the likelihood of norm development for cyber-related weapons and cyberwarfare and will be used in the remainder of this article to offer additional predictions for cyber norms.

Coherence with Existing Dominant Norms Unlikely

Should current trends continue, the outlook for coherence with existing norms is not favorable when applied to cyberwarfare. First, cyber norms will have difficulty achieving coherence with and grafting onto existing norms. Unfortunately, the success of a norm candidate for emerging-technology weapons also will depend, in large part, on the ability to achieve coherence by connecting the new weapon type to an existing category and thus beginning the process of grafting the new norm onto existing norms. While cyberweapons and cyberwarfare have some commonalities with certain weapons, particularly unconventional and emerging-technology weapons, overall they are truly unique. In fact, they are so unique as to operate in their own new, man-made domain outside the normal domains of land, sea, air, and space. As such, cyber norms lack obvious coherence with many prominent norms; therefore, it is difficult for norm entrepreneurs to graft the candidate norms to existing norms. Perhaps the best option for success is the humanitarian norm underlying the existing laws of armed conflict, particularly the norm regarding the protection of civilians and minimization of collateral damage.³³ This is precisely what NATO's *Tallinn Manual on the International Law Applicable to Cyber Warfare* attempts to achieve, arguing that the laws of armed conflict apply to cyberwarfare.³⁴ However, the lack of agreement on key terms and the confusion over the spectrum of hostile cyber operations make coherence and grafting complex and difficult.³⁵

Too Late to Preemptively Establish Norms for Cyberwarfare

Another challenge for norm emergence is that establishing such norms is generally more successful if the candidate norm can be permanently and preemptively established before the weapon exists or is fully capable or widespread. With cyberwarfare, the train has already left the station so to speak. From 2006 to 2013, James Andrew Lewis of the Center for Strategic and International Studies identifies 16 significant CNA-style cyberattacks.³⁶ These include major attacks across the globe, occurring in such divergent locations as the former Soviet states of Estonia and Georgia and the Middle Eastern states of Iran and Saudi Arabia. While no one has yet been killed by a cyberattack, the opportunity for permanent preemptive establishment of a norm has long since passed.

Differing Perspectives on Future Capability and Threat Inflation

There will be challenges arising from differing perspectives as to future capability and the prospect for threat inflation. While it is true cyberwarfare has been demonstrated to some degree—for example, Stuxnet—the hidden and secretive nature of cyberspace makes the actors and their intent unclear, thus limiting the true demonstrative value of recent cyberattacks. This creates competing theories and arguments as to future effectiveness and strategic impact. Illustrative of this fact, some analysts, policy makers, and academics argue that cyberwarfare poses a major threat and warn of a cyber “Pearl Harbor” or “cyber 9/11” moment when critical infrastructure is attacked. Advocates of the impact and severity of the threat of cyberwarfare have included leading decision makers, such as former US Secretary of Defense Leon Panetta. On the other hand, some have argued that statements such as Panetta’s are pure hyperbole and that cyberwarfare poses no such dire threat and may not even constitute warfare as properly defined. German academic Thomas Rid is the leading advocate of this argument, making the case in his popular book *Cyber War Will Not Take Place*.³⁷ In the December 2013 edition of *Foreign Affairs*, Rid argued that not only is cyberattack not a major threat but also that it will in fact “diminish rather than accentuate political violence” by offering states and other actors a new mechanism to engage in aggression below the threshold of war.³⁸ Others, such as Erik Gartzke, share Rid’s view and argue that cyberwarfare is “unlikely to prove as pivotal in world affairs . . . as many observers seem to believe.”³⁹ However, cybersecurity is a huge and booming busi-

ness for IT-security firms, with industry analyst Deltek reporting that the US federal government IT-security market will increase from \$8.6 billion in 2010 to \$13.3 billion in 2015 (a compound annual growth rate of 9.1 percent).⁴⁰ IT-security expert Bruce Schneier has alleged that these firms benefitting from cyber growth have, along with their government customers, artificially hyped the cyberthreat.⁴¹ Schneier points out these firms have benefitted from the lack of standard terms or understanding of cyberwarfare to conflate a wide range of cyberthreats (CNE, CNA, cyber crime, etc.). Some critics have gone so far as to refer to this dynamic as “cyber doom” rhetoric or a “cyber security-industrial complex” similar to the oft-derided “defense-industrial complex.”⁴² Norm evolution theory applied in this case indicates that these vastly different perceptions as to the impact and role of cyberwarfare in international relations and conflict will impair norm emergence, as was the case early in the twentieth century when the role and impact of strategic airpower was highly contested.

Defenseless Perception Impact

The idea that cyberweapons cannot be defended against will fuel interest in a constraining norm but also limits the effectiveness of reciprocal agreements and can lead to weapon proliferation. As a result, once convention-dependent norms are violated, intense domestic pressure can build for retaliatory violations of the norm. Defenses against cyberweapons are largely viewed as inadequate. A January 2013 report from the DOD’s Defense Science Board indicated that the United States “cannot be confident” critical IT systems can be defended from a well-resourced cyber adversary.⁴³ The nature of cyberspace, with intense secrecy and “zero-day” vulnerabilities makes defense particularly difficult and fuels interest in other strategies to manage the threat, including constraining international norms. This situation explains the broad range of actors and organizations involved in early norm promotion and represents a positive factor for the successful emergence of norms for cyberwarfare. However, the experience of norms for emerging-technology weapons with similar perceptions regarding the weakness of defenses also indicates that, while this may fuel interest in cultivating norms, such norms will be fragile and largely apply to use and not proliferation because actors will continue to develop and pursue the weapons, as those actors believe they cannot rely on defenses and, therefore, seek deterrence-

in-kind capabilities. Further, if the early norm is violated, given the inability to defend against continued violations, there may be domestic pressure to respond in kind, leading to a rapid erosion of the norm. Should early cyber norms be violated, such domestic pressure for an in-kind response could build. In fact, the Iranian attack on Saudi Aramco in August 2012 is largely viewed as one of Iran's responses to Stuxnet.⁴⁴ The challenge of attribution in cyberspace may accentuate this dynamic by making retaliatory responses even easier than with prior emerging-technology weapons.

Unitary Dominance and Delayed Proliferation and Adoption

Finally, weapon proliferation and adoption will play a significant role in norm emergence as it will influence state interest in constraining norms. For cyberwarfare, there is not the kind of unitary dominance of a single actor as there was with the US monopoly early in the nuclear age—giving the United States significant influence on norm emergence regarding nuclear restraint. Additionally, given the ongoing proliferation of cyberweapons, the multiuse nature of the technology, and the relatively low cost of entry, delays in proliferating cyberweapons are unlikely. However, there will likely be varied rates of adoption of cyberweapons, with some nations such as the United States, China, Russia, and Israel possessing the most sophisticated cyber warheads.⁴⁵ Experience with norm development for emerging-technology weapons indicates that states with powerful cyberweapons are more likely to resist the emergence of any constraining norms. This is especially true with strong bureaucratic actors, such as the NSA in the United States or the Federal Agency of Government Communications and Information in Russia, potentially advocating for permissive norms. While the Russians have been major advocates in the UN for a total prohibition on cyberweapons, their interest may be driven by a perception that the United States is the dominant cyberpower, or, perhaps more cynically, it could be akin to the Soviet Union's disingenuous early promotion of the constraining biological weapon and nuclear norms while simultaneously pursuing biological and nuclear weapons. Regardless, the varied rates of adoption and development of cyber capabilities indicates that there will be divergent perspectives on constraining norms, making consensus difficult. This helps explain why despite the many actors and organizations involved in developing candidate norms for cyberwarfare, no success

has been made in achieving any broad consensus beyond perhaps the budding consensus regarding the theoretical application of the laws of armed conflict.


Ultimately, if current trends continue, norm evolution theory for emerging-technology weapons predicts that the emergence and early development of constraining norms will be challenged and may not occur at all. Key states—especially China, Russia, and the United States—are unlikely to perceive the emergence of robust constraining norms as being in their self-interest. Further, limited options for coherence and grafting, inability to preemptively establish a prohibition, lack of unitary dominance, increased proliferation and adoption of cyberweapons, and the lack of powerful self-interested state actors converging on a candidate norm present serious hurdles for norm emergence. However, the connection with the idea that cyberweapons cannot be adequately defended against and industry and government hyping of the threat have spurned significant general interest in constraining norms for cyberwarfare—leading to a rise of many actors and organizational platforms. To move past this point and achieve success, a consensus on cyber norms will need to emerge, and such a consensus does not seem inevitable at this point or in the near future. When it comes to cyber norms, the Forsyth and Pope comment that “hopeful statements most often heard do not coincide with current state practice” will remain applicable for years to come.⁴⁶

Prospects for Cyberwarfare Norm Cascade and Internalization

While norm evolution theory for emerging-technology weapons predicts low odds for constraining cyberwarfare norms, should such norms emerge it is worth briefly examining what the theory predicts about achieving a norm cascade and internalization. These latter two phases in the norm life cycle are important if a norm is to have a structural impact on the international system, as hoped for by Forsyth and Pope. If a constraining cyber norm emerges and approaches a norm cascade, then a tipping point may actually be more likely. Certain indicators are important to achieving a norm cascade, such as potential technological improvements that mitigate the attribution challenge, the unconventional characterization afforded cyberweapons, and the expansive international

arms control and disarmament bureaucracy. However, should the norm cascade occur, internalizing it will be less likely—largely due to secrecy and the multiuse nature of cyber technologies that pose their own barriers to internalization and blunt international pressure for conformity and private-sector support. As a result, norm internalization is likely to be most successful for norms governing usage rather than development, proliferation, and disarmament.

Conclusions

Cyberwarfare is still in its infancy, and there are multiple possibilities for how this new mode of warfare will evolve over the coming decades. However, reasonable conclusions can be drawn regarding the prospects for the emergence of a constraining norm for cyberwarfare. While Pope and Forsyth argue that “so long as the society of states exist . . . the great powers will inevitably leverage cyberspace to enhance rather than undermine its existence” and will have “no choice but to work together” and develop constraining norms, norm evolution theory based on historical case studies involving other emerging-technology weapons predicts otherwise.⁴⁷ The theory indicates there are many hurdles facing development of constraining norms for cyberwarfare and predicts that, if current trends continue, constraining norms for cyberwarfare will have trouble emerging and may not ever reach a norm cascade. This is principally due to the fact that powerful state actors are unlikely to perceive a convergence between a robust constraining norm and their self-interest. While the norm evolution theory for emerging-technology weapons predicts grim prospects for the evolution of constraining cyber norms, the threat of cyberwarfare is unfortunately not diminishing. Realizing that constraining norms are unlikely to develop into a regime that could, as predicted by Forsyth and Pope “strengthen legal liability, reduce transaction costs, and mitigate uncertainty,” is helpful, as it allows policy makers to instead focus on more fruitful strategies for addressing this growing threat.⁴⁸ 

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Structural Causes and Cyber Effects

A Response to Our Critics

James Wood Forsyth Jr.
Maj Billy E. Pope, USAF

Abstract

Evidence of the emerging cyber regime is mounting every day. Increasingly, states are bringing notoriously secretive cyber issues into the realm of public debate, particularly in response to events that threaten the availability, security, and surety of cyberspace. This is not to say sovereign states have taken to playing international politics with all of their cards on the table. States will continue to protect sensitive sources and methods as they always have. However, such evidence does lend credence to the idea that even powerful states realize cooperation in cyberspace is part of the domain itself. Furthermore, nonstate actors' attempts to influence state policy, atop the relatively anonymous platforms cyberspace offers, provide even more reason for states to cooperate in their attempts to shape and influence the information environment.



Three things came to mind when writing “Structural Causes and Cyber Effects: Why International Order is Inevitable in Cyberspace.” First, we set out to provide an optimistic response to “cyber-pessimism.” Second, we sought to conceptualize the domain within the thicker pattern of international politics. And third, we wanted to stimulate debate

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regarding the prospects of achieving great-power cooperation in cyberspace. Judging from the quality of the responses received, we seem to have been successful on all three counts.

When considering “Structural Causes and Cyber Effects,” Christopher Whyte offers two important critiques of our argument—both of which have to do with its deterministic nature. In the first instance, no one can predict with Newtonian fidelity whether states will continue to play the determining role in international politics that we ascribe to them. As Whyte points out, a new medievalism may be on the horizon whereby the international system will “experience a complexification of processes as state power erodes.” In the second instance, contemporary notions regarding the distribution of power, which historically favor the return of multipolarity, might prove to be incorrect. Obviously, our theoretical orientation is not in line with such claims, but that does not mean we hold the truth. Theory is not about truth. If truth is the question, we are in the realm of law, not theory. Theories explain things, and Waltzian realism still explains a lot about a number of big, important things. For the purposes of this discussion, however, we will put theoretical orientations aside and focus on the empirical qualities of cyberspace we can all agree on: *the world and its citizenry are becoming increasingly dependent upon cyberspace and the strong connections the domain facilitates.*

Ordinary social and political functions like interstate travel and market economies have been refined and optimized using the time and distance advantages cyberspace affords. Airplanes taking off from Islamabad, Pakistan, are already booked fully with follow-on passengers traveling three connections and three countries away. When a cloud of volcanic ash fills the airspace above Iceland, causing diversions and delays, massive computing power using cyberspace as its workspace mitigates the delays and keeps the complex scheduling system accommodating such travel from crumbling. Transnational corporations draw manufacturing components and expendable resources from every corner of the world in finite quantities with minimal transit times. These complex arrangements produce the goods and services that make up world trade. Corporate operations have become so entrenched in cyberspace that their competitive margins, both domestically and internationally, are dependent upon the efficiencies achieved by instantaneous communication and situational awareness.¹

What does this have to do with international order and cyberspace? Quite simply, as traditional political and social functions become dependent upon cyberspace, states—both big and small—will have to pay attention to the domain in all its facets. These same states, as well as transnational actors, motivated by nothing more than selfish self-interest will accrue benefits from a cyberspace that is both accessible and wide-reaching. Competitive great powers, like large firms in an oligopolistic market—be there one, two, or more—can ill afford to live “off the grid” in the emerging information age; *yet living on the grid requires at least acquiescence to the structures and agencies that keep cyberspace alive*. This, coupled with protecting the enormous capital investments states and transnationals have made in things like undersea fiber-optic cables and associated high-tech infrastructures essential for cyberspace, makes the emergence of a cyber regime reasonable if not inevitable.

Moreover, as the world’s information systems mature and increasing numbers of international actors face the critical intersection of dependency and vulnerability, it is fair to ask why cyberspace remains an ungoverned frontier today. Quite simply, regimes and the agreed norms they rest on take time. One look at the chronological development of early maritime standards provides a useful analogy. The sea laws of Oléron, first codified in the middle of the thirteenth century, for example, postdated man’s dependence on the areas beyond the littorals by hundreds of years.² “Structural Causes and Cyber Effects” highlights the nuclear nonproliferation treaty as another example of how important, difficult agreements take time to unfold. Maturation of the domain will force hard questions into the realm of public debate and policy.

One important conundrum that surfaces repeatedly throughout the budding cyber-policy debate is the ability (or inability) to attribute cyber disruptions to their true sources. It is easy for actors in cyberspace today to remain anonymous if they choose to do so. Encryption technologies allow even unsophisticated actors to cover their tracks relatively well.³ Nation-states and well-resourced nonstate actors have even more advanced capabilities that allow them to remain anonymous online.⁴ These factors, coupled with the monetary and computing resources required to record the actions of individual people in cyberspace, make attribution a difficult task.

States must attenuate the attribution problem if they are to foster responsible behavior and accountability in cyberspace. Here again, the

most potent long-term solution to a thorny cyber-political issue rests in the need for cooperation. Attribution depends on evidence, and this evidence can be spread across information systems owned by several sovereign entities—be they states, commercial companies, or other politically motivated groups. Piecing this evidence together to pinpoint malefactors requires meticulous, coordinated transparency and information-sharing agreements.⁵ While some evidence can be gleaned from publically available records and social media, states more often must work with one another to corroborate information into actionable intelligence. Furthermore, nonstate actors' attempts to influence state policy, atop the relatively anonymous platforms cyberspace offers, provide all the more reason for states to cooperate in their attempts to shape and influence the information environment.

Along these lines, Brian Mazanec raises important questions regarding our argument. His focus on norm development and technology is interesting but, in fairness, not a central concern of ours. As we put it,

As the world transitions from unipolarity to multipolarity—as the structure of international politics changes—the collective dependencies upon the sea, air, space, *and* cyber will intensify. As dependencies intensify, the constraining effects produced by multipolarity and oligopolistic competition will be readily felt by all. . . . In such a world, the fortunes and security of each will be tightly coupled to the fortunes and security of the others, and as a result, the great powers will be incentivized to cooperate.⁶

In fact, there is little in Mazanec's rebuttal that disputes this. In large part, this is because, while we treat cyberspace as a domain, he treats it as a weapon. The two ideas are not mutually exclusive but do lead to different conclusions. Nevertheless, even when one considers cyberspace from the perspective of a weapon, his argument is not convincing. From our perspective, international agreements regarding nuclear, chemical, and biological weapons adequately explain why some states seek comfort from vulnerability through policy. Common sense tells us that when a state determines it is *vulnerable* to a weapon over which it holds little defense, it ought to strive to mitigate its vulnerabilities through any appropriate means necessary—policy being one. Not all states are this shrewd, but most of them are, most of the time. How else can one explain the longevity of the Non-Proliferation Treaty (NPT)? The NPT, although far from a perfect arrangement, has served as a defense for states too weak to build nuclear arsenals of their own; it has

lowered the risk of nuclear proliferation and has provided some stability in a world of 195 states where each is responsible for its own security. Why would cyberspace be any different? Given the inherent advantages of offense over defense, states today have little ability to defend themselves from attack.⁷ This lends credence to the idea that nations will (or at least should) attempt to limit vulnerabilities through norms and policies where “hard” defenses cannot be put in place.

Moreover, evidence of the emerging cyber regime is mounting every day. Increasingly, states are bringing notoriously secretive cyber issues into the realm of public debate, particularly in response to events that threaten the availability, security, and surety of cyberspace. This is not to say sovereign states have taken to playing international politics with all of their cards on the table. States will continue to protect sensitive sources and methods as they always have. However, it does lend credence to the idea that even powerful states realize cooperation in cyberspace is part and parcel of the domain itself. One need only examine recent headlines to find such evidence.


The 2014 incident in which hackers compromised information systems at Sony Pictures Entertainment serves to illustrate this point. Hackers stole and damaged hundreds of gigabytes of data, including future movie scripts, internal financial documents, and employee records, in response to Sony’s controversial film, *The Interview*. The United States Federal Bureau of Investigation publically implicated the North Korean government in the incident, saying “North Korea’s attack on [Sony] reaffirms that cyber threats pose one of the gravest national security dangers to the United States.”⁸ Pres. Barack Obama followed this public indictment stating the United States would seek a “proportional response” as part of a campaign to warn against future attacks.⁹ The response the US government selected was not one of unilateral retaliation but rather was a structured call for coordination and cooperation intended to fortify emerging norms of acceptable behavior in cyberspace. Secretary of State John Kerry articulated the US stance, saying, “This provocative and unprecedented attack and subsequent threats only strengthen our resolve to continue to work with partners around the world to strengthen cybersecurity, promote norms of acceptable state behavior, uphold freedom of expression, and ensure that the Internet remains open, interoperable, secure and reliable.”¹⁰

Make no mistake, cooperation and compromise in cyberspace will not come easily, especially between states with competing interests. In fact, the United States openly requested assistance from China in response to the Sony incident—only to be given the diplomatic brush-off. The *New York Times* quoted one US official as saying “What we are looking for is a blocking action, something that would cripple [North Korea’s] efforts to carry out attacks.”¹¹ China responded by questioning the United States’ evidence implicating the North Korean government in the first place.¹² This request from the United States came during a tense lapse in negotiations between the United States and China over America’s open indictment of five Chinese military hackers for purported breaches into US government and commercial information systems.¹³ Yet, each retreat from the negotiating table thus far has been matched by a subsequent overture for cooperation from both sides.

The United States and China have engaged in a public dialogue regarding the future of cyberspace, cyberwarfare, intelligence, and intellectual property since at least March 2013, when US National Security Advisor Tom Donilon overtly connected China with cyber activities against US interests.¹⁴ This dialogue led to the establishment of an official bilateral US-China cyber working group that made progress toward “international cyberspace rules, and measures to boost dialogue and cooperation on cyber security.”¹⁵ However, suggestions that both the United States and China were engaged in cyber activities that threatened cooperation seemed to undermine and complicate these efforts.¹⁶ Even amid pitted difficulties, both the United States and China acknowledge the value of cooperation and understanding to the continued potential of cyberspace. As recent as February 2015, J. Michael Daniel, special assistant to the president and cybersecurity coordinator at the National Security Council, wrote, “Our Chinese counterparts have told us that the United States and China should work together to build a more open, secure, interoperable and reliable cyberspace. We couldn’t agree more.”¹⁷ In short, China’s recent activities lend credence to the idea that it appears to be more interested in becoming a “norm maker” than a “norm breaker.”

The United States and China are far from being the only stakeholders in the cyberspace-partnership debate. Since we published “Structural Causes and Cyber Effects,” six members of the Shanghai Cooperation Organization (China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan) partnered to present an updated code of conduct for cyber-

space to the United Nations (UN) general assembly in January 2015.¹⁸ Additionally, the UN's International Telecommunications Union has increasingly focused on partnerships to extend the breadth and depth of cyberspace as a mainstay of traditional societal structures. The World Summit on the Information Society, for example, will gather a conglomerate of UN and UN Educational, Scientific, and Cultural Organization participants in May 2015 to focus on extending Internet and communications technologies to disadvantaged areas of the world.¹⁹ Furthermore, the World Economic Forum and the government of Japan have partnered to host a multistakeholder dialogue on cybersecurity and the future of the Internet in November 2015. This summit, promising a cross-sectorial approach consisting of academic, governmental, and industry leaders is focused on "technology, policy-making and the development of cooperative standards and norms."²⁰

The question for all interested parties to consider is: How does one explain all this activity in cyberspace? We have offered a structural explanation. That is to say, cyberspace cannot be comprehended as a separate realm of activity divorced from the context of international politics. Like other domains, order within cyberspace is contingent upon international order writ large. Thus, the great powers cannot choose to ignore cyberspace any more than they can choose to ignore the land, sea, air, or space. As the distribution of power throughout the world changes, the great powers will strive to create rules, norms, and standards of behavior that will mitigate the challenges posed by cyberspace—even if they might prefer not to. This does not mean they will be successful in their endeavors. It simply means states, acting in anarchy, have no other promising options. 

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Territorial Disputes in the South China Sea

Implications for Security in Asia and Beyond

Jihyun Kim

Abstract

The growing tension between China and a number of countries in Southeast Asia over the contested waters of the South China Sea has become one of the biggest potential flashpoints in the region—thus, a good indicator to use in testing the “China threat.” Concurrently, America’s handling of this “Asian problem” is becoming a litmus test for the future status of US primacy as the nation faces crucial opportunities to prove its hegemonic resilience as well as its military and diplomatic skills to protect its allies and friends while navigating through its rivalry with a rising China. This research analyzes the changes and continuities in China’s policy toward territorial disputes in the South China Sea, the prospect for peaceful conflict resolution, and the greater security implications of this issue for Sino-US relations and the future of American supremacy in Asia.



Introduction

In recent years, there have been some alarming views that China’s great power potential, combined with its latent expansionist ambitions and increasingly assertive foreign policy stance, could be a threat to regional and global security as it might trigger major power realignments in East

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Asia and beyond, which would, in the end, challenge US predominance in the post–Cold War international system. Among a number of pressing security issues facing Asia, maritime and territorial disputes over the contested waters of the South China Sea have become among the biggest potential flashpoints amid Beijing’s military modernization in conjunction with Washington’s “pivot” or “rebalancing” to Asia.¹ Given China’s ongoing territorial disagreements with a host of its neighbors, including Japan, the South China Sea dispute is not just an isolated issue for Chinese leaders in Beijing. Rather, it is an important part of the overall process of China rising, with broader implications for demonstrating the nation’s capabilities to protect its interests, sovereignty, and image as a great power. Meanwhile, the China threat has led most Association of Southeast Asian Nations (ASEAN) countries to support Washington’s renewed efforts to “return” to Asia and revitalize the US security ties with allies and friends in the region. This trend transformed the South China Sea into “a focal point for big power rivalry, thus complicating the issues” with potentially wider regional repercussions.² This does not necessarily mean China’s assertive territorial claims will make war inevitable. Instead, it implies “China’s dispute behavior bears directly on the future of peace and stability” in the region. Its handling of the issue reveals whether it is seeking status quo or revisionist foreign policies as its power rises.³ In this sense, the South China Sea dispute is a good indicator to use in testing the China threat theory. In addition, this is a very useful gauge that measures the limits and potential of America’s power when it comes to dealing with Asian problems. It is also a glimpse at the prospect for cooperation between China and the United States and the future direction of Sino-US relations in general.

This article will shed light on some fundamental questions about the rise of China and how this phenomenon challenges America’s supremacy in Asia, with a particular focus on territorial disputes in the South China Sea. First, it briefly discusses competing theoretical perspectives in international relations regarding the rise of China and develops an analytical foundation to evaluate the China threat hypothesis, again focusing on the territorial disputes in the South China Sea and its implications for US supremacy in Asia. Then, it examines key issues in the South China Sea—disputes through diverging and converging interests in addition to the logic behind China’s foreign policy behavior toward ASEAN as a whole and toward each claimant with which the nation has territo-

rial disputes. Next, it explores major changes and continuities of the region's dynamics, influenced by the rise of China, and the implications of Beijing's growing power for the United States in terms of keeping the US-led peace and stability in Asia. Finally, a brief discussion of policy recommendations for China and the United States is offered, since both countries have special responsibilities to maintain regional order and security in the twenty-first century.

Chinese Foreign Policy: Theory and the Rise of China

On the debate of China's rise and its effects on the US-led security and economic order in Asia, there are two dominant perspectives, liberalism and realism—however broadly defined—each of which presents markedly different futures. In general, liberals tend to focus on China's economic opening up and interaction with other countries, the pacifying effects of which will eventually bring China's political liberalization and encourage China to embrace the rules of the existing international system. In contrast, realists emphasize the changing power dynamics and argue that China will become even more assertive as its power and influence increase; thus, the United States (along with its allies and friends in Asia) should be prepared to deal with challenges to the regional and global order posed by this rising Asian giant. These disagreements between liberal optimists and realist pessimists are the most widely understood manifestation of the debate over the rise of China and its impacts. These grand theories “tap into deep-seated forces shaping China;” yet both have weaknesses because of “their linear projection of the future of Chinese policy towards international order—be it the conflictual revision expected by power theorists or the harmonious integration predicted by interdependence advocates.”⁴ To address these caveats, some variations in each theoretical foundation have been explored by a growing number of international relations scholars. For example, some realists do not believe in the inevitability of war, caused by the clash between China's rise and America's decline; whereas, some liberals predict a more pessimistic future, filled with conflict as a consequence of ideological incompatibility and mistrust between a nondemocratic China and a democratic America. Analyzing the logic behind these contending views is useful in guiding us to understand the reality of China's growing influence in

Asia and its implications for US policy as well as the future of territorial disputes in the South China Sea.

Liberal Views on China's Rise: Optimism, Pessimism, and the Effects of Nationalism

Liberals do not usually see a rising China as a threat to America's interests and to the regional and international order. Rather, they have a relatively optimistic view of China's rise and expect a bright future for Asia in general and Sino-US relations in particular, influenced by the pacifying effects of some inextricably related and mutually reinforcing mechanisms, including China's economic liberalization, its membership in international institutions, and its growing potential for political reform and democratization. Drawing on theories of economic interdependence, for example, liberal optimists assert that economic exchange fosters good relations among states by extending the scope of shared interests. In addition, production interdependence becomes intensified in the process of the globalization of supply chains, while the rise of markets leads to "a capitalist peace" where war becomes obsolete given that a nation's wealth can be created by accumulation of human capital and technology, *not by territorial expansion*. Liberals also emphasize that greater interdependence has a restraining effect on state behavior by raising the costs of violent conflict among states.⁵ In effect, China thus far has benefitted enormously from participating in the global economic order rather than challenging existing international institutions. In other words, China has risen precisely because of the successful opening of its economy, the consequence of which has made the monetary costs of expansion through violent conflict significantly high. As such, liberals highlight the extensive costs China would have to bear if it were to assume hostile foreign policies in territorial disputes with its neighbors or toward the United States. Hostility would damage the decades of successful economic reforms, lucrative trade ties with other states, and China's participation in a global system that has effectively supported its rise.

Some liberals are less optimistic about the pacifying effects of China's economic liberalization and more skeptical about the implications of the country's growing power on important matters, including Sino-US relations and the ongoing South China Sea spats. For example, these

so-called “liberal pessimists” point toward the differences between the internal structures and domestic political dynamics of China and the United States (along with America’s allies and friends in the region) and expect greater tensions, which could occur as a result of the interaction among these countries, whose core values are incompatible and whose visions for what constitutes regional leadership are irreconcilable. In other words, what makes liberal pessimists worry is the disparate nature of the Chinese regime vis-à-vis the US-led democratic alliances and partnerships. The inevitable interactions of the two regimes could create a vicious cycle of mutually reinforcing distrust and fear. What makes matters worse is that China is still an authoritarian regime *in transition*, led by the Chinese Communist Party (CCP)—the legitimacy of which is based on an anachronistic ideology that has lost most of its charm.⁶ Thus, Chinese leaders face a dilemma of adapting its old politics to the new and increasingly complex society without losing control of the system. Under the condition, they may opt for utilizing the military as a diversionary measure to face “external threats,” including “foreign encroachments” on China’s sovereignty and territorial integrity in the South China Sea, without making the issue of extending political freedom of their people and embracing a more open society as a primary order; as doing so could not only undermine internal cohesion along the way but also threaten Chinese leaders’ grip on power in the end.

In addition, Beijing has resorted to the promise of building a more prosperous economic future together with appeals to Chinese nationalism so as to compensate for increasingly irrelevant communist tenets and to enhance public support for the regime. Yet, this could be a dangerous mixture, given that if Chinese leaders fail to deliver the promise of economic growth, they would be under pressure to depend “even more heavily on nationalist appeals as its sole remaining source of support.”⁷ In fact, nationalism can be one of the most powerful domestic sources of territorial expansion, which could be exploited by Chinese leaders to bolster political security at home through uniting the public and diverting their frustrations outward. There are several reasons why nationalism and territory are closely intertwined and can easily provide a justification for the state to take a diversionary action through belligerent expansion.⁸ In the case of China, such incentives are particularly strong because of its historical memories of territorial loss and its aspiration to regain the status of a great power after its century of humiliation. In

this light, a key aspect of Beijing's legitimacy stems from protecting national dignity and never again letting China to be bullied. What is more, China's growing social instability and public discontent, engendered by decades of rapid economic reforms *at any cost*, have made nationalism even more essential as a substitute for the governing ideology and as a mechanism to unify the country and sustain the legitimacy of the state. Consequently, leaders in Beijing fear that if they show flexibility regarding China's foreign relations, including its maritime claims in the South China Sea, it could be taken as a sign of disgraceful appeasement and weakness at home. In this view, China's muscle-flexing foreign policy, including its southward push into the western Pacific, can be seen as a diversionary maneuver to preserve domestic cohesion and unity as well as regime legitimacy.

Conventional Realism

In general, realism offers a more gloomy prediction with regard to China's rise and its expansionist ambitions. In particular, scholars who support offensive realism or power transition theory take the China threat seriously and predict it to be a cause of conflict in the future. According to the theory of offensive realism, conflict in international politics is likely to occur when rational states perceive power as the ultimate source of security and seek to maximize their prospects for survival in an anarchic world through expansion, as they grow stronger relative to other great powers.⁹ In this view, China's rise will not be peaceful, especially as it challenges the interests of the existing hegemon and other great powers in the system along with its efforts toward outward expansion.¹⁰ Contrary to offensive realism, defensive realism does not view states as aggressive power maximizers. Instead, the logic of the security dilemma is an important aspect of defensive realism.¹¹ According to this view, China may not have a national objective to displace the United States as a preponderant power in Asia and beyond. Nonetheless, defensive realism still shows a fairly pessimistic outlook about the future of East Asia and Sino-US relations due to the mechanism of the security dilemma. The larger political goals of both China and the United States may be purely defensive; yet, the "defensive" measures that each takes, along with its regional allies and friends, to secure its position may still arouse alarm and encourage the other side to consider countermeasures so as to assuage a sense of vulnerability.

For most realists, China rising is detrimental, given that “throughout history, rising powers have tended to be troublemakers, at least insofar as their more established counterparts in the international system are concerned.”¹² It is not unusual for rising powers to strive to secure their frontiers and even to challenge territorial boundaries, taking measures to have access to new markets, resources, and transportations routes. In addition, they are more likely to try to fully exercise their rights to protect “core interests” and reclaim their “place in the sun.” In this view, China’s “ambitions will grow as its capabilities increase” and as its new-found power allows it to enjoy more opportunities for influence; thus, “China’s goals will be more expansive than they now are.”¹³ However, this does not mean that China will be more war-prone. Rather, it means China is more likely to do “what all great powers do: not simply react to its international environment, but instead act to shape that environment in ways that are conducive to its national interests.”¹⁴

With regard to contemporary China, most pessimistic realists conclude the country, as a rising power, is likely to behave no differently than have others of its kind throughout history, becoming more assertive as its economic and military capabilities expand. John Mearsheimer, for instance, expects China to “be strongly inclined to become a real hegemon” like all previous potential hegemonies, as long as it continues to accumulate its power; this means the country “would not be a status quo power but an aggressive state determined to achieve regional hegemony.”¹⁵ Similarly, other scholars of power theories highlight China’s revisionist intentions, influenced by its growing geopolitical appetite. They assert that China’s transition from a poor, developing country to a relatively wealthier one will “result in a more assertive foreign policy” from Beijing, making it “less inclined to cooperate with the other major powers in the region” and more eager to change the regional balance of power and ultimately replace the United States as the world’s leading superpower.¹⁶ According to these views, therefore, issues like the ongoing South China Sea territorial disputes can be seen as a potential source of China’s dissatisfaction and the eventual breakdown of the status quo. This is because China is more likely to demonstrate growing ambitions to extend its territorial control along with the increase of its power—the consequences of which would include heightening risk of an inadvertent (or even intentional) conflict along the way. In a similar vein, China’s yearning for achieving regional hegemony, through force if necessary,

would also make conflicts over territory in the South China Sea more likely, especially if China's expansionist ambitions clash with the resistance of other claimants supported by the United States, the existing superpower.

Avoiding the Thucydides Trap

All in all, notwithstanding some variations within each school of thought, both liberals and realists largely engender two different outcomes of China's ascendancy, its policy toward territorial disputes in the South China Sea, and the greater security implications of the issue for Sino-US relations. One view is that China's eventual dominance of the South China Sea through its military and economic expansion will be inevitable. Another perspective is that Beijing will curb its territorial ambitions and refrain from resorting to militaristic expansion in order to prevent regional conflicts that would damage its economic interests, undermine its assertion of "peaceful rise," and even strengthen US involvement in Asian affairs and further legitimize Washington's rebalance to Asia. Yet, as asserted by Rory Medcalf, "the story is only beginning," and it still remains to be seen which scenario will turn out to be right.¹⁷

Thus far, China has taken a position of pragmatic realism. As asserted by many China experts, "interpreting Chinese foreign policy as *a rational pursuit of national interest* is preferable to seeing a major role of ideology in Chinese foreign policy-making."¹⁸ (emphasis added) In a way, the Chinese seem to have supported the realist view of a hierarchy of issues in global politics—headed on several occasions by questions of military security, national sovereignty, greater power and prestige through economic strength and prosperity, and preservation of the political system led by the CCP through internal stability—even without explicitly acknowledging or using the realist concepts of "high politics" and "low politics."¹⁹ Moreover, force has been considered a usable and effective instrument in China's foreign policy making. According to Wang Jisi, "the Chinese believe using or threatening force to be the most effective means of wielding power" to address their deep security concerns, despite their recognition that other means can also be employed.²⁰

At the same time, Chinese leaders have adopted a policy of *pragmatism*, which is defined as behaviors that are "disciplined by neither set values nor established principles."²¹ Rather, pragmatism in policy behavior has been firmly goal-fulfilling and interest-driven, conditioned ex-

tensively by China's national needs, political objectives, and geostrategic ambitions. According to David Lampton, "the PRC's [People's Republic of China] global behavior is distinctive in its utter pragmatism, or [what is called] the situational ethics with which these contending impulses are balanced as Chinese leaders decide how to act internationally" in the course of seeking to "maximize benefits in an ever changing yet interconnected global environment."²² In this, Chinese leaders consider values and ideas of "right" and "wrong," if not unimportant, at least less important. Nor do they treat communist ideology as sacred and immutable; rather, it is something they can modify and adjust, as shown in their acceptance of a market economy, in order to advance national interests and preserve the existing regime under the leadership of the CCP.

Until now, China's pursuit of pragmatic realism has allowed it to *work with* its neighbors and the major powers within the existing international system while mostly restraining itself from overtly expressing its expansionist ambitions, attempting to change the status quo, or challenging the American hegemonic influence in Asia. Even if China has never been fully satisfied with the post-Cold War geopolitical settlement, the complexity of modern power realities has made it reluctant to be a full-blown revisionist power. This is because the collapse of the American-led world order could undermine China's national interests, facilitated by the current system, in which the country, as one of the geopolitical insiders, has enjoyed special privileges like its veto power at the UN Security Council along with easier access to trade, investment, and technology from other societies.²³ The conciliatory track has not always guaranteed the lack of tension between China and its neighbors (and/or the United States), nor has it completely eliminated the potential for shifting toward the warlike track caused by some serious incident at sea or dangerous diplomatic gambits over protracted territorial disputes in the region. Nonetheless, the peace-inducing incentive of China's relations with its neighbors and the United States, supported by its pragmatic realism, has mostly prevailed over the conflict-producing ones until now. This has been largely due to overlapping interests among China and the United States and most of China's Asian neighbors, in terms of keeping the peace in the region and collaborating to deal with major global problems with regional implications. In addition, despite China's discomfort with America's overall military superiority and the US presence in Asia, what the United States calls national interests have

not essentially been in conflict with China's policy preference of supporting regional stability.

Yet, as elucidated by Suisheng Zhao, China's "pragmatic strategic behavior is flexible in tactics, subtle in strategy, and avoids appearing confrontational, but it is uncompromising with foreign demands" that could undermine its vital national interests or disrespect its historical sensitivities.²⁴ This implies that China's pragmatism, which has facilitated its relatively peaceful rise thus far, will not automatically guarantee its continuing support for regional stability and status quo in the future. Instead, its pragmatic realism could evolve in either way. Until now, China's potential for involvement in armed conflict has been limited not necessarily because the country is genuinely peaceful or risk-averse but because the benefits that it gains through economic interdependence and pacific coexistence with other states still exceed the high costs of risking war. This view that the likelihood of China's overt aggression, including territorial expansion, is low has allowed observers to be cautiously optimistic about China's dealing with its neighbors, embroiled in territorial disputes for years.

Nonetheless, although Beijing thus far has emphasized the importance of regional stability and peaceful interdependence with other states as necessary conditions for its continuing economic success, its strategic calculation and cost-benefit analysis may change if it considers that a combination of multiple internal and external factors can make the ultimate benefits of its coercive and unilateral actions substantially outweigh the costs. For example, China's increasingly assertive rhetoric and actions in the South China Sea can be seen as a manifestation of its new strategic calculations, which involve the needs to boost "President Xi Jinping's prestige and authority for his domestic reform agenda. Against this backdrop, public opinion has emerged as a powerful force that could either bolster or degrade Chinese leaders' legitimacy when it comes to evaluating their responsiveness to the people's demands regarding massive external problems and internal challenges. However, Beijing's politics of compromise, patience, and rapprochement may not be considered pragmatic if it the nation faces a situation where it needs to demonstrate its resolve not to be "contained" or "threatened" by others or in dealing with matters of sovereignty and territorial integrity. In this sense, Chinese leaders' growing assertiveness on territorial matters can be interpreted as part of efforts to boost their authority and prestige and

to adapt China's old manner of governance to the new society without losing control of the system. Under these circumstances, president Xi asserted that "no country should presume that we will trade our core interests or that we will allow harm to be done to our sovereignty, security, or development interests," even while reaffirming Beijing's adherence to the policy of "shelving disputes and carrying out joint development" in contested waters—in line with ideas initially put forward by Deng Xiaoping.²⁵

As a rising (or reemerging) power, China has an increasing interest in terms of showing its strength and safeguarding its pride. Thus, it is more inclined to retaliate with force, if provoked, even though it may still be reluctant to initiate and enter into a military conflict with any of its neighbors. In this sense, the supreme irony of Washington's Asia-Pacific pivot, which is often seen as "an American reprise of Cold War 'containment' now directed at China, fueling an arms race and U.S. alliance structure that is a growing threat to China," is that it has encouraged a list of countries in the region, including "the Philippines and Vietnam, as well as Japan, to oppose and challenge China, and to decline to negotiate in good faith to resolve disputes," testing the limits of Beijing's restraint with US-led "defensive" alliances and partnerships, which are deemed to be offensive in the eyes of Beijing.²⁶ In conjunction with the rise of nationalist competition in the region, this may further facilitate the process of Beijing's shifting focus from economic to geopolitical concerns, which in turn would expedite self-reinforcing cycles of aggression among all sides locked in the disputes.

Nonetheless, "conflict is a choice, not a necessity," although enduring disputes are more likely if established countries like the United States (with its regional allies and friends) treat every advance in China's military capabilities as a hostile act or China, as a rising power, disregards "the tenuous dividing line between defensive and offensive capabilities" and overlooks "the consequences of an unrestrained arms race."²⁷ Under the circumstances, both China and its neighbors, supported by the United States, may create the self-defeating "Thucydides trap."²⁸ This implies that a deadly combination of the growth of Chinese power and the anxiety that this caused in America (and its allies and friends in the region) may evolve into mutual distrust and turn their healthy rivalry into conflict and unnecessary war. Interesting in this analysis is that China's increasing assertiveness regarding issues like the South China Sea is

not as important in itself as a sign of things to come—that being the potential danger of China, the United States, and other claimants in the disputes falling into dangerous and destructive zero-sum competition.

At present, America's strategic concerns include losing its hegemonic status and being gradually pushed out of Asia. On the one hand, there is China's fear of being militarily encircled by an outside power aligned with inside powers, capable of impinging on China's territory or intervening in its own "regional" affairs. Under the circumstances, "just as Chinese influence in surrounding countries may spur fears of dominance, so efforts to pursue traditional American national interests can be perceived as a form of military encirclement."²⁹ The clash between these forces could make concerns about those powers falling into the Thucydides trap more than just an illusion. The critical question is whether, and if so under what conditions, China's pragmatic realism would steer it to be more conducive to peaceful conflict resolution instead of choosing a hostile revision of the status quo. What follows is an analysis of the assumptions discussed above to examine whether the United States and China, along with other Asian nations, can avoid the Thucydides trap by letting their seemingly irreconcilable objectives coexist without resorting to violence. In a larger sense, this case has produced only partially known outcomes as tensions over the contested waters of the South China Sea continue with sluggish multilateral diplomatic efforts to institutionalize a binding code of conduct (COC).

The South China Sea Disputes

China's assertion of its right to a vast stretch of the South China Sea has directly set it against the Philippines and Vietnam, while Brunei, Malaysia, and Taiwan also have overlapping claims with China—especially over their rights to exploit the region's possibly extensive underwater oil and gas resources in addition to rich fisheries. The traditional high seas freedoms are also at stake, making the issue even more complex and extraregional. For instance, Washington has interests in safeguarding the rights to navigate, overfly, and conduct military exercises within waters that China claims as its own. Also, ASEAN as a whole, and other directly or indirectly involved states, have important shared interests in terms of seeking a peaceful regional order, the significance of which goes beyond the territorial disputes among a limited number of claimants.

This section is designed to explicate major changes and continuities of maritime security and territorial disputes in the South China Sea amid China's rise as a dominant player in Asia. The overall implications of the ongoing tensions between China and other disputants for Sino-US relations will also be evaluated.

Changes and Continuities of Territorial Disputes

In 2010 Beijing for the first time identified protecting its sovereignty in the South China Sea as a “core interest” that cannot be compromised, alongside previously claimed Taiwan, Tibet, and Xinjiang, stating its “willingness to respond to actions it perceives as challenging” those national interests of sovereignty, territorial integrity, and maritime rights.³⁰ In the following year, however, Chinese defense minister Liang Guanglie stated his country's “solemn pledge” never to “seek hegemony” and alluded that China's policy in the South China Sea was “purely defensive in nature.”³¹ This statement was made amid heightened tensions across the South China Sea during the first half of 2011, in the aftermath of Vietnam's unprecedented live-fire naval exercises after accusing the Chinese of a “premeditated and carefully calculated” attack against Vietnamese oil-exploration vessels.³² The Chinese had also been accused by Manila of unloading construction materials on Philippine-claimed Amy Douglas Reef and firing on Filipino fishermen, leading to great anxiety not only in the Philippines but also among most of its neighbors regarding China's territorial ambitions and to considering Beijing's gentle rhetoric as nothing more than a disguise for its gradual expansionism.

That directly undermined Beijing's agenda to project its image as a regime committed to peaceful development. Similarly, rising tensions in the South China Sea could undermine China's national interest of maintaining regional stability, which is necessary for achieving the top political goal of preserving legitimacy of the CCP through continued economic growth. Furthermore, escalating tensions over the territorial disputes could cause China to lose its leverage over its potent rivals, especially the United States, if Washington should use the disputes over the South China Sea to meet its broader goal of gaining deeper strategic and economic influence in the region. Based upon these evaluations, China decided to soften its position toward ASEAN as a group and took a charm offensive toward a number of individual states in the region through more positive and pragmatic diplomacy in line with its “good-

neighbor” policy. For instance, despite their continuing adherence to the principle for resolving the issue through negotiation with parties directly concerned and the persistent effort to avoid the issue becoming internationalized, Chinese leaders pledged to hold consultations with Southeast Asian nations on the COC so as to avoid escalating tensions and to maintain mostly cooperative ASEAN-China relations from turning into potential conflict.³³ Even while asserting full implementation of the 2002 Declaration on the Conduct of Parties in the South China Sea (DOC) as the first step to peaceful settlement of disputes, the COC was embraced, at least rhetorically, as the continuation of the DOC and an ultimate guideline for parties concerned to constructively manage their differences. This gesture was widely hailed in the region as a pragmatic step forward, given that China had previously rejected any efforts by ASEAN members and their Western allies, most notably the United States, to create a multilateral regional forum to solve the South China Sea issue through a binding COC.

Furthermore, Beijing renewed its efforts to engage ASEAN in line with China’s *strategy of divide and prosper*, which is interpreted as a *strategy of divide and conquer* by others. China offered a series of attractive measures for the group as a whole, pushing for stronger integration with regional economies while hiding its stick in hope of accentuating the shared destiny of China and the ASEAN nations. This approach was driven not only by Beijing’s commercial interests but also strategic imperatives so as to overshadow Washington’s power and influence in the region and to make Southeast Asian states rely more on China for trade and investment. While sidestepping territorial disputes, President Xi asserted during his address to the APEC CEO Summit in October 2013 that “China cannot develop in isolation from the Asia Pacific while the Asia Pacific cannot prosper without China.”³⁴ In his efforts to mend regional relations overshadowed by escalating tensions over the South China Sea and to enhance China’s role as a chief regional partner, Xi sought to reveal China’s softer foreign policy initiatives, emphasizing Beijing’s readiness to build political and strategic trust with its wary neighbors as well as to strengthen the China-ASEAN free trade area and expand investment and financing channels to bolster ties with ASEAN.³⁵ In addition to multilateral diplomacy, Beijing tried to strengthen its bilateral ties with a list of ASEAN members, including even ones locked in territorial disputes with China—such as Malaysia, Brunei, and Vietnam—by

offering economic packages and highlighting their shared destiny.³⁶ From Beijing's perspective, Sino-ASEAN cooperation, along with China's friendship with a number of individual states in the region, would be the key not only to strengthening economic relations between China and the regional body but also to building trust—necessary for reducing regional tensions and promoting China's major power status.

Regarding the South China Sea disputes, however, China has been less compromising and never deviated from its position that the disputes are *not* an issue between China and ASEAN, thus Sino-ASEAN cooperation should not be affected by such disagreements. China has maintained its view that regional cooperation, not island disputes, should be at the crux of China-ASEAN relations—even while increasing its assertiveness in the South China Sea in recent years. This is due in part to Beijing's new strategic calculation, made in a combination of inextricably linked internal and external factors, which has led it to reconsider the cost and benefits of its coercive and unilateral actions in the South China Sea. Internally, China's exceptional economic growth, made possible partly by embracing certain aspects of capitalism over the past few decades, has had considerable political implications as well as crucial economic changes in the course of taking important "economic decisions out of the hands of central state planners and bureaucrats," the consequences of which include a new state-society balance with less dominant leaders facing stronger and increasingly pluralized society and individuals, armed with easier access to information and greater control over their lives.³⁷

Despite Chinese leaders' preoccupation with their own enormous domestic challenges, they are also extremely attuned to external power relations, "both the current power relationship and the interlocutor's future power prospects" in diplomatic, commercial, and other settings. The Chinese assume the United States is extremely unlikely to "involve itself in a military conflict in China's backyard—an assumption, made after years of watching the US hesitation about military intervention" in places like Syria and Ukraine.³⁸ Additionally, these leaders harbor a growing conviction of American decline together with suspicion (if not indignation) of Washington's efforts to prolong US leadership and dominance over Asia by hedging against and preventing China from replacing the United States as a superpower.³⁹ In the midst of China's claims over disputed territories that increasingly challenge US leadership in

Asia and test US alliances in the region, Beijing has warned against any single power's attempt, implicitly referring to Washington's Asian pivot, to dominate regional affairs, even calling for a new Asian security framework to counter the United States.⁴⁰ Concurrently, the significance of maritime disputes in the South China Sea has increased as the sea plays a role as China's "natural security shield for its densely populated southern regions and ports."⁴¹ In effect, "China's traditional emphasis on economic growth is now increasingly accompanied by more nationalistic postures on political and security issues" along with the rise of competitive nationalism across the region, further complicating the matter and making the prospect for the "return of geopolitics" more plausible.⁴² In this light, China's decision in early May 2014 to deploy its mega oil-drilling platform Hai Yang Shi You (HYSY) 981 into contested waters near the Paracel Islands off Vietnam is especially telling, as it seems to have exposed glimpses of Beijing's deliberate determination to change the regional environment in China's favor. The deployment of the oil rig has also reinforced the perception of Beijing becoming "more proactive in promoting periphery diplomacy" and quietly departing from Deng Xiaoping's counsel to "observe calmly, secure our position, hide our capacities and bide our time, be good at maintaining a low profile and never claim leadership."⁴³

However, China's bold provocation with the operation of the HYSY 981 has backfired, sparking skirmishes between the Chinese and Vietnamese coast guard vessels and deadly anti-Chinese riots in Vietnam—with Beijing having to evacuate more than 3,000 Chinese nationals after attacks on Chinese-owned factories and construction projects in Vietnam. The HYSY-981 incident has also made Beijing's "charm rhetoric" sound void and Southeast Asian nations more suspicious of China's aggressive regional ambitions, further convincing its neighbors of the needs to strengthen their ties with the United States. Against this backdrop, China announced on 15 July 2014 that its commercial exploration operations had been completed "a full month before its original deadline of August 15" and that its mega oil-drilling platform would be removed from disputed waters in the South China Sea and towed back to Hainan Island, ending "the physical confrontation at sea between Chinese and Vietnamese ships" as swiftly as it had started.⁴⁴ The early withdrawal of the oil rig was widely interpreted as Beijing's pragmatic face-saving approach to ease tensions and repair relations with Vietnam,

making “a tactical shift in Chinese policy from confrontation at sea to diplomacy and political dialogue.”⁴⁵

Despite the growing conviction of the end of charm diplomacy—supported by China’s increasingly assertive rhetoric and actions in the region—the regime remains too pragmatic to risk (not to mention completely abandon) its pursuit of economic and diplomatic cooperation with its Southeast Asian neighbors. This is true despite the regimes continued advancement of Chinese national interests even in the midst of its territorial contestations with its neighbors. However, China has become more confident and comfortable than ever with its strategy of simultaneously pursuing a charm offensive and coercion, with the expectation it can manage to balance the task of keeping good relations with its neighbors and contemplating the idea of altering the status quo in its favor.⁴⁶ China’s pragmatic realism, combined with its awareness of its own limitations especially regarding the United States in every possible setting, would continue to make it highly cautious about projecting hegemonic ambitions to build the Sino-centric order. Doing so could further legitimize American intervention and damage the positive impacts of globalization and economic interdependence.

China’s maritime disputes with a number of Southeast Asian nations have increased anxieties among those directly and indirectly involved in the controversies due to the growing potential for armed conflict or a negative impact on sea shipping lanes. According to a 2014 Pew Research poll, majorities in eight of the 11 Asian states surveyed, including some ASEAN members, are worried about territorial disputes between China and neighboring countries leading to a military conflict, with overwhelming proportions of the public in the Philippines (93 percent) and Vietnam (84 percent) expressing such fears.⁴⁷ Notwithstanding their overall security concerns about China’s growing assertiveness and its rising military power, however, a number of important ASEAN members want close ties with China economically. This is the prevailing view in Thailand (75 percent), Malaysia (69 percent), and Indonesia (55 percent), where many believe “China’s growing economy is good for own country.” Regarding the question of whether “China will overtake or has already overtaken America as superpower,” Asian nations are mostly divided in their opinion, whereas the countries of the European Union, the Middle East, Latin America, and Africa more or less believe that this has already happened or will happen.⁴⁸

In effect, the divided view among China's Asian neighbors, especially ASEAN members, regarding the rise of China sheds some light on why ASEAN has not been in a unified position for years when it comes to dealing with the South China Sea disputes. At least on the surface, ASEAN member states have shown a consensus on broad goals for achieving the COC—even while acknowledging the reality that the code is not a magic wand to completely solve core disputes. The official position of the group is that the COC is a necessary condition for promoting region-wide confidence and for avoiding lawlessness, as there will be a greater risk of escalation of tensions due to miscalculation without it. However, there remain specific disputes, not to mention a lack of compatibility of preferences, between China and some members of ASEAN—most notably the Philippines and Vietnam. At the same time, the convergence of interests between China and some ASEAN countries, including even those locked in the disputes in the South China Sea, has led those nations to downplay tensions and distance themselves from this particular issue while trying to strengthen their economically profitable and strategically preferable ties with Beijing.

The division among ASEAN over the South China Sea disputes was painfully epitomized at 2012 ASEAN Summit when Cambodia—the ASEAN chairman of that year and a close ally of China—kept the issue off the agenda, leading to the failure to release a final joint communique for the first time in the group's history. Despite Cambodian prime minister Hun Sen's close relationship with the Vietnamese, "Cambodia's dependence on Chinese aid and investment—worth more than \$11 billion during the last two decades" and Cambodia's position as a party not directly involved in the territorial disputes, have led Phnom Penh to support Chinese claims, inadvertently strengthening Beijing's position in territorial matters by publicly splitting ASEAN and making the organization "a dysfunctional trading bloc incapable of negotiating for itself."⁴⁹ ASEAN's lack of unified will for confronting China has also been demonstrated by some of its other members, including Brunei and Malaysia, which have downplayed concerns about the threat posed by Chinese naval vessels patrolling the region's waters. Despite tensions over the South China Sea, these two nations see reason to tread cautiously, given their complex and mostly lucrative interdependence with China. For instance, "Malaysia has taken a relatively low key role in public on the two occasions Chinese warships have passed by James

Shoal to claim it as part of China's territory," due to fears of unnecessarily provoking the country's critical trade partner.⁵⁰ Accordingly, regardless of Malaysia's concerns about these incursions and China's growing pressures against its neighbors like the Philippines and Vietnam, Malaysia has taken a softer approach, glossing over the matter by claiming "that the Chinese vessels had stayed in international waters during their activities" and by trying to keep a nearly neutral stance toward China within ASEAN.⁵¹ Similarly, Brunei failed to attend "talks among the four Southeast Asian nations with claims on the South China Sea," promoted by the Philippines, claiming that it would not be in Brunei's "national interest to do so."⁵² Likewise, even while expressing concerns about escalating regional tensions and emphasizing the importance of establishing the COC in the South China Sea, top Thai officials have repeatedly asserted that their country would "continue to play an active role in boosting ASEAN-China ties" and would not allow any particular issue to undermine mostly positive ASEAN-China relations.⁵³

On the other hand, Vietnam and the Philippines have been locked in bitter fights against China over territory in the South China Sea, including the Paracels and the Spratlys. In the case of Vietnam, for years, the nation has occasionally shown a tendency to take a more nuanced and pragmatic approach in dealing with China; however, Vietnam, along with the Philippines, has also been one of the most active opponents of China's expansionist ambitions. This was largely because Hanoi could not afford to ignore China's economic status as its largest trade partner and most important investor. Indeed, China's rapid rise has increased the need for Hanoi to position its relationship with Beijing in a more practical way. Against this backdrop, Hanoi has tried to prioritize the common interests between China and Vietnam over their differences, despite the complex bilateral relations in recent history, during much of which China has been one of the most fearsome enemies of Vietnam. For example, while visiting China in June 2013, Vietnamese president Truong Tan Sang promoted partnership with China in a wide range of fields, including people-to-people exchanges and economic cooperation for mutual benefits through accelerating China's "implementation of major investment projects" in Vietnam.⁵⁴ The two sides also made an attempt to establish a working group for discussing joint natural resources exploration in waters of the Beibu Bay, located in a northern arm of the South China Sea.⁵⁵ This discussion was considered as a sign of Viet-

namease pragmatic concession to China. It signaled Hanoi's readiness for bilaterally solving the disputes by taking a step-by-step approach, starting with the easiest possible cooperation—adjusting Vietnam's previous insistence on a multilateral process. This would pave the way for solving more difficult issues, including the tricky long-term issue of sovereignty over the South China Sea.

However, carefully cultivated Sino-Vietnam rapprochement stopped in May 2014 after the positioning of the Chinese oil rig in waters claimed by Vietnam, causing the most serious deterioration of Sino-Vietnamese relations since the 1979 border war. This oil-rig incident has heightened Vietnam's political dilemma, often described as a lose-lose situation. The continuous erosion of Vietnam's territorial integrity, caused by appeasing China's encroachment, "could trigger a popular uprising, and even a revolt within the army," which is increasingly dissatisfied with the subservient party leadership. The army's perception is that these leaders unduly acquiesce to China. However, exclusively siding with a democratic America in dealing with Chinese aggression would eventually require the Vietnamese Communist Party to implement sweeping political reforms to align itself with the United States and US democratic allies and friends in the region.⁵⁶ What has further complicated Vietnam's domestic political situation is the reality that "the Vietnamese Communist Party is split between more conservative pro-China elements and pragmatic national interest types," with the latter group favoring closer ties with the United States.⁵⁷ Concurrently, the so-called May riots against Chinese citizens in Vietnam had adverse effects on the Vietnamese economy and revealed the potential for how brinkmanship in both Hanoi and Beijing could spiral out of control.

Overall, Vietnam has had to be more cautious about dealing with China's provocations, even while preparing for a potential war with China and seeking to step out of China's economic shadow. At the same time, Vietnam's enduring doubt regarding China's rise has encouraged Vietnamese leaders to carefully balance and improve relations with other global powers, including the United States and Russia. For example, Vietnam has worked to rebuild its ties with Russia, which has pledged to provide loans to help Vietnam upgrade its military equipment and provide Russian military supplies, including six *Kilo*-class diesel attack submarines to the Vietnamese navy.⁵⁸ In addition, Hanoi has tried to use the escalating rivalry between Beijing and Washington to enhance

Vietnam's own geopolitical and economic advantage, as the two major powers are keen to woo Vietnam away from each other's strategic orbit. With a hope of gaining greater access for its exports to the United States, Vietnam has joined negotiations to enlarge the Trans-Pacific Partnership, the US-led free trade agreement among Pacific Rim economies. At the same time, Hanoi has sought to balance between Beijing and Washington without going too far in either way, so as to maximize the nation's position of independence and geopolitical strength even as a minor power. It is a rationally calculated strategy of double-handedness that reveals Hanoi's political objectives to continue to ride on China's coattails while cautiously maintaining its diplomatic centrality between a still formidable United States and a rapidly rising China to maximize Vietnam's own national interests.

In contrast, Manila has taken a more straightforward and less compromising position, openly criticizing Beijing's divide-and-conquer strategy. Realistically speaking, the Philippines is ill-suited for confronting China by itself due to the bilateral power disparity, with the Philippine military being one of the region's weakest and having a military budget one-fortieth the size of Beijing's budget. The Philippines is also unable to directly challenge China due to the latter's status as the world's second-largest economy and one of the five permanent members of the UN Security Council. This provides Manila with a much weaker economic and diplomatic leverage over Beijing. Under these conditions, the Philippines has tried to strengthen ties with its key ally, the United States, in line with Washington's rebalance to Asia. In addition, the Philippines has embraced a charm campaign with Japan—another crucial democratic ally of America in Asia—which is a major regional competitor of China in search of its own sphere of influence. The Philippines has done so by boosting its economic relations and strengthening its military ties with a swath of nations in the area, thus potentially making Southeast Asia a key battleground for Sino-Japanese rivalry. In effect, the Abe administration has taken a series of strategic dialogues and defense exchanges with a number of Southeast Asian states, “providing patrol boats for the Philippine Coast Guard, and doubling its military aid budget for Indonesia and Vietnam” to build wider-ranging regional partnerships and boost regional maritime capabilities to more actively counter China's territorial assertion.⁵⁹ Whereas most ASEAN members have been reluctant to openly choose sides given their geographical proximity

and shared destinies with China, the Philippines has welcomed Japanese prime minister Shinzo Abe's push to expand Japan's military role and to allow for the "reinterpretation" of Japan's pacifist constitution. Such reforms would grant the Japanese armed forces a greater role in "collective self-defense" against a common enemy—implicitly targeting China and its growing assertiveness in the region.⁶⁰

In effect, most other ASEAN members have tried to strike a balance between threats and interests posed by China because business and trade opportunities offered by this rising giant, in addition to Beijing's calls for building a comprehensive strategic partnership, seem more promising in the long run than Japan's assistance measures do. This explains why these nations have largely put aside their misgivings about China's rise and strived to build win-win relationships with Beijing rather than pursuing a zero-sum developmental pattern.⁶¹ However, the Philippines and Japan have been excluded from Beijing's overall plan to revamp its smile diplomacy toward most other countries in Asia. Under these conditions, the convergence of interests between Manila and Tokyo in various issues, including their shared threat perceptions regarding Beijing's assertiveness in the East and South China Seas, led the two to establish the Japan-Philippines Strategic Partnership. This agreement's objective is to strengthen bilateral cooperation in the field of maritime affairs "through such measures as the dispatch of patrol vessels of the Japan Coast Guard" to the Philippines.⁶² These intensifying bilateral ties reveal important aspects of Manila's broader strategy, aimed at strengthening its defense cooperation with a willing partner to make up for the Philippines's lack of military power. This is a part of Manila's efforts to multilaterally handle the security challenge so as to more effectively counter Beijing's pursuit of bilateralism, which Manila is not capable of facing alone. Moreover, Manila took legal action under the auspices of the UN Convention on the Laws of the Sea in January 2013 to counter the Chinese incursions into what the Philippines considers its maritime domain. Beijing has condemned the action, claiming Manila has breached the DOC, and refused to participate in the process. Nonetheless, Manila has continued the proceedings with a hope that its legal case against China would "carry considerable moral and political weight."⁶³

However, most ASEAN members, even those states agitated by China's claims, have been reluctant to offer explicit diplomatic support for Manila's arbitration because of Beijing's growing influence in the region

and their concerns that the legal case “might have negative repercussions for ASEAN-China relations.”⁶⁴ Overall, underneath “ASEAN’s veneer of diplomatic unity,” ASEAN diplomacy amid the China threat has shown more continuities than changes in terms of failing to present a united front on the maritime disputes and to “convince China to exercise self-restraint in the South China Sea.”⁶⁵ As an unintended and ironically positive byproduct, the heated South China Sea disputes in the midst of the brewing major power rivalry between China and the United States have enhanced the strategic significance of Southeast Asian states as Beijing and Washington compete to win the favor of these regional players in countering each other’s policy of containing the other. However, the escalating South China Sea disputes have continued to expose conflicting interests and divisions among ASEAN members and their lack of cohesive strategic vision for the future. In particular, their diverging perspectives on how best to handle Beijing’s growing assertiveness have increased the potential for them to be “at the mercy of great power rivalry between China and the United States for regional influence” and to be caught in the middle of conflict between the two in the future, possibly forcing them to take sides.⁶⁶

As elucidated in *U.S.-China Economic and Security Review Commission 2013 Report*, “China’s military modernization, rising economy, and growing diplomatic influence” are strengthening Beijing’s ability to enforce its territorial claims “in its near seas,” including the South China Sea, Yellow Sea, and East China Sea.⁶⁷ Although the South China Sea dispute is not new, the risks of conflict between US military forces and/or America’s allies on the one side and their Chinese counterparts on the other side are increasing. This is largely because China’s unswerving sovereignty claims over disputed waters in the region are supported by its ongoing military modernization and growing economic clout. The combination of these two factors is changing the overall configuration of the regional security architecture. What is more, the relative decline in US power is slowly undermining America’s decades of military supremacy and hegemonic influence in Asia and beyond. Yet, the report says that it is still critical for the United States to maintain a credible military presence in Asia given that China is becoming more capable of using “its growing power in support of coercive tactics that pressure its neighbors to concede” to Chinese claims in the maritime disputes. The report further emphasizes, the increasing importance of deepening America’s ties

with allies and partners in Asia and the needs to bolster the capacity of US forces' readiness in the western Pacific to counterbalance "China's growing military capabilities and surge naval assets in the event of a contingency."⁶⁸ Accordingly, the United States has strengthened its strategic relations with countries in the Asia-Pacific, including key members of ASEAN, such as Indonesia, the Philippines, Singapore, and Vietnam. The frequency of joint military exercises between and among the United States and those countries in the region has increased in conjunction with Washington's strategic rebalancing to Asia, although Beijing has warily looked on "the Asia pivot" as an American attempt to rally those states against China. In effect, Beijing has warned Washington against making efforts to hurt China's core interests by strengthening America's ties with countries in the Asia-Pacific and inflaming tensions in the region's waters and against using the issue of freedom of navigation as an excuse to interfere with China-ASEAN relations.

However, those warnings have not convinced Washington to reverse its Asian pivot. At the Shangri-La Dialogue in Singapore in 2012, Leon Panetta, then-secretary of defense, presented a comprehensive and detailed explanation of how his country would rebalance toward the Asia-Pacific through consolidating America's alliances and partnerships in the region and by pursuing "innovative rotational deployments that emphasize creation of new partnerships and new alliances."⁶⁹ Among others, America's growing defense relationship with Singapore and the forward deployment of US combat vessels in that country were mentioned as part of a tangible manifestation of Washington's commitment to rebalancing. Then, USS *Freedom* arrived in Singapore in April 2013 as part of Washington's plans to increase the US military presence in the region.⁷⁰ In addition, the United States has vowed to boost military ties with the Philippines, one of America's oldest allies in the region, to secure Southeast Asia's sea lanes in line with the principle of freedom of navigation. Washington has also sought to strengthen its political support for Manila as part of the strategic pivot to Asia and to defend its ally from China's growing aggression in waters claimed by the Philippines. In this, Manila's objective to enhance its security (through American support as leverage against China) has opportunely dovetailed with Washington's strategy to pivot away from years of serious military engagement elsewhere toward the Asia-Pacific, partly to "manage," if not contain, a rising China.

Although the United States, as a non-claimant in the South China Sea disputes, does not take sides in the issues, these developments have occurred because the nation has a deep stake in preserving global navigational freedoms and unimpeded commerce across the seas. These include the busy sea lanes in the South China Sea, which are critical to world trade. Thus, the United States, for both strategic and commercial reasons, has been a constant facilitator of freedom of the seas, which is also an important collective good to the world. Simultaneously, however, US officials have long highlighted diplomacy as the wisest course to subdue regional concerns over China's growing strength and repeatedly asserted that America's strategy toward Asia is not designed to "push back against or be in conflict with China."⁷¹ Such a caution is because of the overall significance of Sino-US cooperation, which is vital to global peace and stability. As acknowledged by Obama administration officials Hillary Clinton and Timothy Geithner, "few global problems can be solved by the U.S. or China alone. And few can be solved without the U.S. and China together. The strength of the global economy, the health of the global environment, the stability of fragile states and the solution to nonproliferation challenges turn in large measure on cooperation between the U.S. and China."⁷² Given this reality, the United States appears to have determined to prevent Asia's island disputes from undermining overall Sino-US relations, the significance of which in every issue dimension cannot be overemphasized. Despite America's concern about the destabilizing effects of China's territorial claims, the United States has little interest in seeing its regional allies and friends—let alone its crucial trade partner, China—become embroiled in military conflicts to settle their disputes over ownership of islands, use of seabed resources, or the scope of their territorial seas and exclusive economic zones.⁷³ Rather, US interests lie in those disputes being resolved through diplomatic negotiations and pragmatic compromises. That is why senior officials in Washington, even while striving to stem China's expansionist ambitions, have repeatedly warned against the danger of China-bashing and emphasized the need to proactively engage Beijing, including through making progress in Sino-US bilateral defense ties to build trust and to avoid any miscalculations or unnecessary incidents in the region.⁷⁴

Moving Forward

All in all, the ongoing territorial disputes in the South China Sea carry enormous implications for overall security in Asia and beyond. In effect, the given issue can be seen as a critical test case that would illuminate the prospect for Beijing's capabilities and willingness to alter the regional status quo amid geopolitical rivalry between still preeminent US forces and China's rapidly modernizing military in the era of globalization and complex interdependence where the two states and their neighboring countries are inextricably tied together based on various issue linkages and closely intertwined economic interests. In a larger sense, therefore, the significance of the South China Sea disputes goes beyond the estimated value of potential energy resources—not to mention a few small islands and rocks. This is largely due to the greater tension between China's ambitions of reestablishing itself as a great power and the US objectives of safeguarding its supremacy and keeping favorable alliances and partnerships in the region. Concurrently, America's handling of this so-called Asian problem is becoming a litmus test for the future status of US primacy as the nation faces crucial opportunities to prove its hegemonic resilience and its military and diplomatic skills to protect its allies and friends while navigating through its rivalry with a rising China. Thus, Sino-US competition may be unavoidable, especially given each other's pursuit of continuously expanding their own geostrategic influence and national interests.

China's core interests and ambitions are likely to expand as the nation's power expands. However, China's intentions and willingness to aggressively use that power are not predetermined—nor are the exact contents of those intentions and willingness static. Rather, "the specific nature and content of its growing appetites," along with the means through which they are fulfilled, will be greatly influenced by "the choices that other states take in regard to China" as well as the Chinese domestic audience, which is sensitive to any outside actions taken against the country.⁷⁵ The Chinese elite cannot afford to take a conciliatory strategy of peaceful rise *if* doing so may appear too soft to protect China's national interests and pride, especially when other states singled out China as a threat or an instigator of regional tensions. Nevertheless, the US priority in terms of keeping American preeminence and credibility as a regional security guarantor is likely to make the United States reluctant to give way to China's growing assertiveness in the Asia-Pacific, which China

considers its own traditional sphere of influence. That could heighten the potential clash between the two great powers, with the South China Sea disputes becoming a trigger. Joseph S. Nye asserts that “throughout history, whenever a rising power creates fear among its neighbors and other great powers, that fear becomes a cause of conflict,” with even small events triggering an unintended and catastrophic chain reaction.⁷⁶ In other words, exaggerated and unmanaged fears could produce the so-called Thucydides trap, creating a devastating self-fulfilling prophecy.

Still, the escalation of regional tensions into war with US military intervention is neither inevitable nor desirable for the US and China or other countries in the region. The fact that both Beijing and Washington, along with members of ASEAN, have their common interests in safeguarding the freedom of navigation in the strategically and economically important South China Sea is promising. In fact, these mutual interests have been strong enough to overshadow the conflict-producing aspects of China’s territorial spats with its neighbors or the Sino-US rivalry, caused by alliance politics and mutual suspicions regarding each other’s strategic intentions in the region. As Singaporean prime minister Lee Hsien Loong acknowledges, “None of the Southeast Asian countries want to have a fight with China. In fact, China, too, goes considerably out of its way to develop friendly relations with ASEAN.”⁷⁷

Still, it is critical for all to find ways to agree on practical face-saving solutions to the South China Sea disputes, including “joint development, shared infrastructure and coordinated investment” as well as international arbitration.⁷⁸ Though none of these proposals are new, the effectiveness and plausibility of success of these plans would increase only if all those involved let their seemingly irreconcilable objectives co-exist by making some concessions and changing their perspectives about what should be prioritized. It is also important to make efforts to moderate mutual suspicions regarding each other’s strategic intentions and to control rising nationalism across the region through dialogue—treating the task of building trust not as a precondition but an ultimate challenge and goal. For example, if China’s priority is set to seek a peaceful solution rather than preserving national pride or establishing/extending sovereignty, embracing the idea of “using the Law of the Sea to help split sovereignty from commercial exploitation and joint development of fishing, oil and gas resources” would become easier, enhancing China’s credibility as a peace-loving power and invalidating the notion of

the China threat.⁷⁹ It is also important for other claimants to prioritize the COC as a mechanism to manage tensions and to avoid open armed conflict rather than seeking such as a panacea and/or as a way to single out and disgrace China for its intransigence.

What is more, China needs to walk the walk—not just talk the talk—when it comes to demonstrating the nation’s intention to rise peacefully. At the rhetorical level, Beijing “has repeatedly lauded its ‘peaceful rise’ intention and a new security concept for regional security arrangements;” yet, in practice, China has done poorly in removing many barriers to make that vision credible. Moreover, China has been ineffective in providing “detailed roadmaps to the sort of peaceful regional order that it openly preaches.”⁸⁰ For example, Beijing’s explicit statement of support for a dialogue with ASEAN claimant states on the COC is a gradual, yet important, step forward to creating an environment more conducive to the multilateral settlement of the issue. Nevertheless, Beijing needs to continue the Sino-ASEAN consultations on the COC in a way that produces substance and strengthens mutual trust through vigorously promoting common understanding and compromise. As for other claimants in the South China Sea and ASEAN as a whole, this is the key moment to reunite themselves in a way to enhance their regional leverage and develop their capacities to ameliorate their fears of a rising China. Concurrently, these nations must capitalize on the opportunity to expand the scope of their economically profitable relations with China into strategically reliable partnership instead of being overwhelmed by the protracted nature of the South China Sea disputes.

As for Washington, the core task is to make it clear that the nation’s pivot to Asia is not designed as a zero-sum game to target and isolate China but to fulfill the US role as a reliable provider of Asian security—still powerful enough to maintain its vital alliance relationships and keep regional tensions at bay. In case of any regional conflict over the disputed territories, the United States has a responsibility to defend its long-standing ally, the Philippines, and to support its regional partners such as Indonesia and Malaysia. To do otherwise would undermine America’s credibility not only in Southeast Asia but in the Asia-Pacific and elsewhere. At the same time, it is important to embrace the reality that encouraging restraint from all parties and peacefully resolving these disputes will be in America’s best interests. In fact, direct American intervention could be counterproductive, given the risk of damaging

its critically important ties with China in the name of defending US allies and friends even if Chinese actions might not directly threaten core American interests, including freedom of navigation in the South China Sea. Nonetheless, Washington must pay close attention to Beijing's perception of American decline and maintain comprehensive national power in order to keep healthy and balanced relations with a rising China. Despite the significance of Sino-US collaboration on a range of global problems, excessively accommodating China's demands might backfire, as doing so could feed "an image in Beijing of weakness in the outside world," encouraging it to make a further attempt to push.⁸¹

Thus, the United States needs to continue its engagement in Asia with some muscle in its diplomacy—not necessarily to provoke China but to enhance deterrence to counter China's expansionism and to convince Beijing there is nothing to be gained by bullying its neighbors. At the same time, nothing good can come from excessively "pushing China, which has its own concerns about America's role in Asia, into a corner."⁸² Under these conditions, it is essential for the United States to find the right balance between reassuring US allies and partners of Washington's commitment to the stability in Asia-Pacific *and* maintaining America's pragmatic policy of engagement with Beijing so as to protect US interests without exploiting Beijing's anxieties. This would require the United States to pursue a strategically nuanced approach to sustain its credibility as the major balancer of power in Asia, while simultaneously making efforts to create an environment in which China would be incorporated as an essential part of the regional community. Such an approach would necessitate a delicate balance of alliance management on the one hand and practical and vigorous engagement with Beijing on the other. In this, the United States would have to work hard to enhance its strategic relationship with China, even while striving to maintain its military supremacy and to keep the regional balance of power in its favor. Such a cautious and seemingly inconsistent approach would not necessarily reflect the discrepancy of Washington's Asia policy. Rather, it would be a sensible manifestation of the realities of America's complex interdependence with China and other states in the region.

Faced with the risk of conflict and the task of reducing the geopolitical tensions, scholars and global leaders alike have called for building strategic trust, based upon a new type of major power relationship between Beijing and Washington.⁸³ Henry Kissinger, for example, asserts

that “the emergence of a prosperous and powerful China” should not be considered “in itself to be an American strategic defeat” given the non-zero-sum nature of their bilateral ties in the twenty-first century.⁸⁴ Perhaps then, the real danger is to treat a rising China as detrimental to regional peace while seeing growing tensions in the South China Sea simply as a reflection of Beijing’s expansionist ambitions or concluding that Sino-US relations will follow the vicious cycle of the rise and fall of the great powers. To fall prey to such thinking will enhance an arms race and worsen the security dilemma. Thus, there is no better time than now to heed Joseph Nye’s counsel that “the best way to make an enemy of China is to treat it like one,” leading to a self-fulfilling prophecy.⁸⁵ In fact, the future of China’s rise is open-ended, which is not necessarily bad. Rather, it means it is still possible to shape the future to become more peacefully and mutually-enhancing. Such a promise can bring out pragmatic realism in China, which strives to emerge not as a threat but a powerful, yet respected and proud, member of the regional and international communities. The specific issue of South China Sea disputes, though deemed as a major geopolitical flashpoint, can still be turned into an opportunity for creating a better future. Especially if China wants to be recognized not merely as a rising power but also as a valued leader in Asia and beyond, that nation must not miss this chance to mitigate the ongoing tensions by assuaging its neighbors’ concerns about its aggressive expansionism and by promoting inclusive region-wide commercial benefits and strategic partnerships. □□□

Notes

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Book Reviews

The Strategist: Brent Scowcroft and the Call of National Security,
Bartholomew H. Sparrow. PublicAffairs, 2015, 717 pp. \$24.99.

Bartholomew Sparrow has written an admiring biography of an admirable man—one whose rise to power was as rapid as it was unique. In 1963 Brent Scowcroft was an obscure military professor at the United States Air Force Academy (USAFA). He had been sent there from West Point in 1961, when the Air Force Academy still had some ambition to create for itself the sort of breeding ground for strategic thinkers that the social science department at West Point had become. Still a major after 16 years of service, he had never seen combat or commanded anyone other than a few junior professors. To all expectations, probably including his own, he was set on the well-trodden path for military intellectuals: a few years of academy teaching and perhaps a department chairmanship or a staff job in Washington, followed by retirement and obscurity. Instead, 15 years later, he was one of the most powerful and widely respected figures in American foreign policy. Sparrow's exhaustive biography is a record of the means and the price of that ascent.

A 1948 graduate from West Point, Scowcroft had intended to fulfill his commitment as a fighter pilot and then return to the family business in Spokane. However, a training crash caused by a faulty engine governor on his North American P-51 Mustang fighter-bomber put him in a body cast and changed the direction of his life. Although he kept his pilot qualification, Scowcroft returned to West Point and its magisterial "Sosh" department. But this meant he missed the Korean War—the conflict in which his West Point classmates would prove their mettle. In the end, he would miss the Vietnam War as well, at least as an active participant. Later in life, as a three-star general who had never seen battle, he would be criticized as lacking a key qualification for the role he played in the development of military strategy. Sparrow mentions this criticism but finds little merit in it. Nor did his lack of command experience seem to inhibit Scowcroft in criticizing battle plans of the joint chiefs, as he did in the run up to Operation Desert Storm in Iraq. The fact he had made his career outside the Pentagon meant he was under no obligation to honor Pentagon orthodoxy. He was free instead to exercise the reasoned judgment for which he was so much admired throughout the bureaucracy, even among those with far different points of view.

Some of Scowcroft's rapid rise was the result of good fortune, but Sparrow describes as well the behind the scenes maneuvering involved. The US Air Force (USAF) had heard rumors that Alexander Haig, who had gone to the White House as a military advisor and had become deputy to Henry Kissinger at the National Security Council (NSC), had presumed too much in Kissinger's frequent absences and had fallen into disfavor with his boss. Scowcroft's USAF superiors hoped that once in the military assistant's job Scowcroft would be the obvious successor to Haig as deputy national security advisor—thus, well placed to look after USAF interests at the White House. The first part of the scheme worked perfectly. Scowcroft impressed Kissinger, who

saw in him the qualities of integrity and judgment that would become Scowcroft's hallmarks. Meanwhile, Scowcroft was ingratiating himself with senior staffers by his willingness to find USAF aircraft to speed them on their travels. As often as not, he went along. Haig was duly removed and Scowcroft installed as Kissinger's deputy. However, the USAF had overlooked another Scowcroft quality that made him invaluable to Kissinger but less useful to them: his discretion. US Navy reps on the staff were pilfering the contents of Kissinger's burn bag for the chief of naval operations, but there is no evidence Scowcroft ever provided a back channel to the White House for the USAF. Within a year, Scowcroft had succeeded Kissinger as national security advisor. He stayed in a USAF uniform for another two years, rising in short order to the rank of lieutenant general. However, he had become and would remain a creature of the presidency.

This was the era of Pres. Gerald Ford, the Nixon pardon, and national recovery from the traumas of Vietnam and Watergate. Kissinger was now secretary of state, battling with James Schlesinger at the Department of Defense to define a new direction for US foreign and security policy. Big egos were jostling for influence with an inexperienced president, with Scowcroft as mediator. Able to control his own ego, disinterested in the spotlight, and discrete sometimes to a fault, Scowcroft turned out to be the perfect man for the job. He had inherited a decision-making structure—the national security system—of marvelous design, built to ensure real policy options reached the president and that presidential decisions were effectively implemented. One of Scowcroft's first and best decisions was to keep that system intact but to change how it functioned. Pres. Richard Nixon and Kissinger had used it to keep the bureaucracy at bay. Now, it became a true facilitative body, trusted by the agencies to reflect their views fairly and to sharpen options for the president. In this first stint at the NSC, Scowcroft was more facilitator than policy maker, but that turned out to be exactly what the system and President Ford required.

In relating these events, Sparrow emphasizes the personal qualities that made Scowcroft effective in his new role—most of all his integrity. Scowcroft appears seldom in the Nixon White House tapes, but when he does, we never hear him truckling to the president as Kissinger and Haig often did. Scowcroft was not the sort of man for that. However, what strikes the reader is another quality that usually goes unremarked, perhaps because it is taken for granted: Scowcroft's tremendous self-assurance. Here was a man who had lately been a staff colonel at the Pentagon, now participating as an equal with individuals who were—or, at least, considered themselves to be—world-class intellectuals and prime movers of foreign policy. Nevertheless, there is never a sense of uncertainty, tentativeness, or excessive deference in his approach, even when dealing with figures like Kissinger, who had intimidated entire bureaucracies. It would be said of Condoleezza Rice, when she served under Pres. George W. Bush, that she lacked what the British call “the bottom” to deal with the likes of Donald Rumsfeld and Dick Cheney. However, no one ever thought Scowcroft lacked bottom; rather, he seems to have been born with it.

Sparrow gives only brief mention to the 12 years of the Carter and Reagan administrations that separated Scowcroft's first stint as national security advisor from his sec-

ond. When Scowcroft left the White House following the Ford administration, he had become a lobbyist—perhaps less rapacious and with more sense of civic responsibility than most of that breed. He set up shop first with Kissinger and eventually with some of his protégés, and—as is the Washington custom in such matters—got rich.

Pres. Ronald Reagan's approach, for all its mistakes and excesses, tended to highlight a weakness of the realist perspective that Scowcroft represented. Like many other Cold War warriors of his generation, Scowcroft initially failed to see the decisive impact of moral indignation as a driver in foreign policy. The *détente* policies he helped Kissinger formulate were implicitly a bargain: acceptance of the legitimacy of Soviet rule in return for reductions in military tensions between the superpowers and some steps toward bringing limits to the nuclear arms race. From this point of view, President Reagan's moral denunciation of Soviet rule, with its echoes of the McCarthy-era "rollback" policies, seemed to be self-indulgent posturing that would undermine the tentative progress Scowcroft had helped to achieve in ending the Cold War. However, Reagan was on to something. The Soviet Union was precisely as he often portrayed it: an oppressive, intellectually bankrupt, and stultified gerontocracy ruled by fear and lacking any but the barest pretense of legitimacy—in short, an evil empire. For Scowcroft and those of his realist generation, this was simply a fact of life to be managed. However, Reagan saw it, correctly, as a fatal weakness and—with his gift for phrase making—was just the man to exploit it.

All this paved the way for the presidency of George H. W. Bush, and it was now that Scowcroft really came into his own. What the Bush administration achieved in its four years, as Sparrow reminds us, is perhaps without parallel in any similar period of our history: the peaceful demise of the Soviet Union and the emergence of independent states from what had been its empire, the reunification of Germany and its integration within NATO, and the creation of a broad coalition that expelled Iraqi forces from Kuwait and crippled Iraq as a disruptive force in the Middle East. None of this was preordained, and much might have gone wrong without the adept diplomacy and level-headed policy of President Bush and his aides. There were lesser but still significant achievements as well: the restoration of relations with China after Tiananmen Square, the thwarting of a coup against the democratic regime of Corazon Aquino in the Philippines, the establishment of a framework for nuclear reductions between the superpowers, and the invasion of Panama and capture of Manuel Noriega. Much credit for all this must go to the team of foreign policy professionals the president had assembled. Jim Baker, Brent Scowcroft, Colin Powell, Dick Cheney, Larry Eagleburger, and Bob Gates were fully the equal of the generation of "wise men" who had structured a new world order after World War II—in short, a foreign policy team for the ages. At the center of it all was Scowcroft, directing traffic, coordinating discussions, assuaging egos, sharpening options, and ensuring that the administration—in spite of sometimes heated internal disagreements—presented a unified face to the world.

Scowcroft appears now as both a facilitator and a substantive force in policy. He was not always on the winning side, partly because he had difficulty shaking the Cold War perspective that had shaped him. So he was skeptical about Mikhail Gorbachev's reforms in the Soviet Union, too dismissive of arms control as an instrument of policy,

in favor of a more measured pace to German reunification, against NATO enlargement, and perhaps overly eager to forgive the excesses of the Chinese leadership's suppression of the democratic movement. In his interviews with Sparrow, Scowcroft also faults himself for taking his eye off Afghanistan as it tumbled into anarchy. Sparrow points to policy exhaustion at the end of the Bush administration, compounded by a nagging presidential illness.

The personal cost of all this was profound. Workaholism is a chronic disease in Washington, where no one will admit to watching television for pleasure and many will claim to have given up sleep. However, even among all the sallow-faced drudges, Scowcroft stood out. He seemed to have no personal life, and even someone like Bob Gates, Scowcroft's close collaborator for two decades, tells Sparrow that he never met Jeanne Scowcroft, Scowcroft's wife. Her long decline in health corresponded with her husband's most successful and therefore busiest period at the White House, and he was her sole caregiver. No one at the White House seems to have realized what was happening, and Scowcroft himself apparently never mentioned the personal strain he was under. Sparrow does not dwell on this aspect of Scowcroft's life, but he has done a service by documenting it, giving us a fuller picture of the man.

Still, this first full-scale biography of Scowcroft is not without its faults. As previous chroniclers of this period have underestimated Scowcroft's role, so the present author tends to exaggerate it. Moreover, Sparrow brushes by errors in Scowcroft's judgment that turned out to be nearly as consequential as the administration's successes. Some of the claims for Scowcroft are more egregious than others, none more so than credit for the "left hook" ground war attack strategy in the first Gulf War. Claimants to that credit are many: Vice President Cheney and Deputy Secretary of Defense Paul Wolfowitz most prominent among them. It is true that all of President Bush's advisors, including Scowcroft, reacted negatively to the initial "frontal assault" plan presented by Gen Norman Schwarzkopf. Cheney rushed off to devise an alternative, but Scowcroft seems to have left it at that. Sure enough, a few pages after giving credit to Scowcroft, Sparrow admits the obvious: Scowcroft never submitted a detailed plan, Cheney's ideas proved impractical, and the credit properly belongs to Schwarzkopf's staff, which planned the maneuver in detail, and to Schwarzkopf himself, who commanded the battle.

More central to the theme of this biography is the claim that Scowcroft "almost single-handedly" determined the nature of the US response to the Iraqi invasion of Kuwait. This is part of a general tendency in Sparrow's account to treat President Bush almost as a bit player in his own administration. Sparrow often speaks of a Bush, Baker, and Scowcroft "team" in charge of foreign policy. This is especially true when he is describing a foreign policy triumph; however, he most often simply attributes mistakes to "the administration." Nevertheless, anyone who has worked in Washington knows the president is not part of any "team." Other officials, no matter how exalted their titles, are staffers, while the president—in Pres. George W. Bush's awkward but accurate phrase—is "the decider." In this case, even after a military response was decided upon, the nature of it was far from clear. That was ultimately determined by President Bush, and to him—as Scowcroft himself would be the first to admit—must go the credit.

The Gulf War was a splendid military victory bookended by diplomatic disasters. After the war, as the victory glow faded, a scapegoat was needed for the bungling that had failed to deter Saddam Hussein before the invasion and left him in power afterward. Assistant Secretary of State John H. Kelly, whose testimony to Congress left an impression of US indifference about the outcome of the Iraq-Kuwait border dispute, largely exonerates himself in his oral biography for the Department of State. He points the finger at April Glaspie, US ambassador to Iraq. He also excuses himself for approving Glaspie's absence from Baghdad on the day of the invasion, claiming she was a "weak" ambassador and her presence would have made no difference.

Glaspie made a convenient scapegoat for the White House as well. However, it is unreasonable to suppose that Saddam's decision to invade was based on a 45-minute meeting with Ambassador Glaspie and not on a decade of temporizing signals from Washington, where the prevailing view had been that the Iraqi dictator, for all his sins, had his uses. That view began to change as Iraqi artillery moved toward the Kuwait border in late July 1990—but not quickly enough. Sparrow seems to notice this point but brushes by it. Perhaps it was too late by the afternoon of 1 August, when I sat in the Oval Office with President Bush and Scowcroft as they discussed the prospects of the Iraqi invasion. The first of Saddam's forces crossed the Kuwaiti border three hours later. However, there had been time in the previous two weeks, as the intelligence assessments darkened, for the president, or perhaps even Scowcroft, to send an unambiguous warning to Saddam. Instead, Kelly's statement to Congress of US disinterest in the border question and his hint that Kuwait (or at least its northern provinces) was outside any military redline of the United States were allowed to stand. Scowcroft surely bears a greater share of responsibility for this and for the subsequent consequences than our ambassador in Baghdad does.

Much the same might be said of the botched aftermath of victory, when General Schwarzkopf allowed Saddam's forces to keep the helicopters that would be decisive in putting down the uprising that Scowcroft and others in Washington had assumed would bring Saddam down. Conspiracy theorists (a group which, in the Middle East, includes virtually every sentient adult) are convinced this was part of a conscious plot to keep Saddam in power as a buffer against Iran and to send the gulf sheikdoms scurrying under the military umbrella of the United States. It seems, on the contrary, to have resulted from a fit of absentmindedness. Still, the Schwarzkopf incident begs a question: what was this military commander—not known for the diplomatic subtlety of his mind—doing on his own in the desert without instructions determining the political aftermath of the victory just won? Here again, Scowcroft must bear some—even the major—responsibility. He has said by way of explanation that the tendency was to "defer to the military," but it was precisely his job to ensure that all points of view were taken into account. In this case, he failed.

He was brought back by Pres. George W. Bush to head the Foreign Intelligence Advisory Board, but his suggestions for reform of the intelligence community were ignored. It was by then clear that Scowcroft's school of moderate realism was in eclipse, replaced by an ambitious, bellicose generation of neoconservatives, including some whom Scowcroft had nurtured early in their careers. Scowcroft saw what was com-

ing, especially in Iraq. Ever the backroom operator, he now went resoundingly public, sounding a remarkably prescient warning about the disasters to come and criticizing his protégé, Condoleezza Rice, for losing control of the decision-making process. As Sparrow points out, Rice was Scowcroft's creation. It was he who transformed her from a slightly affected White House intern into a national security advisor in even less time than a similar transition had occurred for him. Now she and the new establishment turned on Scowcroft, who had committed the unpardonable sin of being right when most of the establishment, including the president, was wrong.

Scowcroft, of course, is still with us and still active. The honors that escaped him earlier in life are now being bestowed in abundance. Almost as many pages are required to list them as the author used for the first 35 years of Scowcroft's life. This first, full-scale biography is a useful addendum to other accounts of the period, including Pres. George H. W. Bush's and Scowcroft's own accounts in *A World Transformed*. Still, one would do well to wait for Scowcroft's autobiography, due out later this year. In the meantime, Sparrow's book should be on the list of any serious student of realist perspective in foreign policy, especially as personified by Scowcroft during the presidency of the first President Bush.

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Detering Cyber Warfare: Bolstering Strategic Stability in Cyberspace,
Brian M. Mazanec and Bradley A. Thayer. Palgrave Press, 2014, 95 pp.
\$67.50.

Detering Cyber Warfare: Bolstering Strategic Stability in Cyberspace leaps headlong into the ongoing debate among cyberanalysts seeking to offer an effective framework for understanding cyberwarfare and a set of implementable solutions for the United States—all in a brief 78 pages of text. Brian M. Mazanec, a US government analyst, and Bradley A. Thayer, a university professor, describe the purpose of their monograph in writing, “The major question we address in this study is: in light of the challenges of applying deterrence theory to cyber warfare, how can the United States and its allies successfully deter major cyber-attacks?”

Answering this question lies at the very heart of many recent works on the subject. *Cyberdeterrence and Cyberwar*, *Inside Cyber Warfare: Mapping the Cyber Underworld*, *Cyber War: The Next Threat to National Security and What to Do about It*, and *Conflict and Cooperation in Cyberspace: The Challenge to National Security* are but four of many works that have sought to address this very question during the past five years. Thus, Mazanec and Thayer's contribution to the study of cyberdeterrence is not new, but neither is it merely the latest work in a field with a glut of monographs and edited volumes on the subject.

In laying the groundwork for the recommendations that come at the end of the monograph, the authors begin by effectively making a case for the threat posed by

cyberwarfare. However, in defining their key concepts, Mazanec and Thayer often conflate cyber crime, cyber espionage, and cyberwarfare by calling all of these events cyberattacks (either computer network exploitation or computer network attack). The lack of distinction is common in the broader debate surrounding discussions of cyberwarfare and may be the result of a field not yet reaching an agreed upon nomenclature. Establishing a set of widely accepted concepts and terms will go a long way to offering greater clarity to this very young domain of warfare.

Throughout the work, the authors lament the “attribution challenge” explaining that it is difficult and time consuming to determine the party responsible for a cyberattack. The weakness of this argument is that nation-states (or even violent nonstate actors) are, in fact, more capable of determining responsibility than commonly acknowledged. This argument also presumes an attacker will seek anonymity, when in reality they may not. In no other domain of warfare is there a concern for the attribution challenge. This is with good reason. When states go to war, they generally desire for an adversary state to know who has initiated the fight—albeit after a successful attack.

It is in the realms of cyber crime and cyber espionage where nonstate actors and nation-states seek to create an attribution challenge for the intended victim. Unfortunately, the authors do not make such distinctions, which would have offered greater clarity of purpose. As Panayotis A. Yannakogeorgos points out in *Strategies for Resolving the Cyber Attribution Challenge*, it is important to create different standards for cyber crime, cyber espionage, and cyberwarfare.

There is a second weakness in this work. In attempting to apply principles developed for nuclear deterrence to cyberspace, the authors offer generalizations of these concepts that are either incorrect or remove important granularity from the concept. For example, the authors describe “deterrence by punishment,” which may be deterrence by threat or compellence—the latter resulting from the failure of deterrence. The authors’ definitions are ambiguous, and by introducing uncertainty, the authors appear to conflate key deterrence concepts. This critique does not suggest that Mazanec and Thayer do not offer some useful insights. In offering a brief description of a rather large topic, there will inevitably be areas left uncovered. The brevity of this monograph is its greatest asset and primary weakness.

The set of conclusions the authors offer is largely consistent with the recommendations offered by other analysts looking at cyberwarfare. For Mazanec and Thayer, developing effective cyberdeterrence largely centers on two developments: a need to develop effective declaratory policy and a need to develop offensive cyberweapons.

As with other forms of warfare, the authors suggest the United States should develop declaratory policy that establishes American redlines for specific forms of cyberattacks. They see such redlines as working to establish international norms and serving more effectively to deter an adversary. Mazanec and Thayer also suggest any declaratory policy should include a provision that clearly articulates the US position toward a state that hosts “independent” cyberattackers—as Russia and China are known to do. This would include any direct or indirect support to nonstate actors that engage in any form of cyberattack and would include, much as with terrorism, a list on state

sponsors. Finally, the authors suggest Washington needs to lead the way in establishing international cooperation that expands and spreads state responsibility.

While Mazanec and Thayer give very limited attention to offensive cyberweapons, they do suggest that the United States should develop a “full spectrum” of military assets capable of deterring and responding to cyberattacks. Such a spectrum, according to the authors, includes such ideas as empowering third parties to enforce redlines and the issuance of letters of marque and reprisal.

The most effective means of improving their analysis is straightforward: expand the monograph to provide greater clarity of central ideas and concepts. At 78 pages of text, the work is a bit too brief. Mazanec and Thayer might also consider incorporating greater discussion of classical deterrence concepts: signaling, strategic ambiguity, escalation, de-escalation, limited cyber options, and others. With a solid foundation of literature available, there is now room for analysts in the cyberwarfare field to flesh out concepts that, to this point, remain vague.

Well written, straightforward, and brief, *Deterring Cyber Warfare: Bolstering Strategic Stability in Cyberspace* offers interested readers a means of dipping their toe into the water of cyberwarfare studies. While they may not offer the most comprehensive look at the topic, Mazanec and Thayer provide prospective readers with a sufficient introduction to cyberwarfare and give newcomers a foundational understanding of a topic growing in importance.

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Democracy's Double-Edged Sword: How Internet Use Changes Citizens' Views of Their Government, Catie Snow Bailard. Johns Hopkins University Press, 2014, 162 pp. \$34.95.

Catie Snow Bailard provides an exceptional, experimental look at how Internet access provides a causal linkage to popular satisfaction within democratic governments. Her research explores a quantitative basis behind the social dynamics evident within the Arab Spring uprisings, the Crimean crisis, and the Middle East insurgencies. Any world event over the past 10 years involves populations connected through the global cyberspace commons. Social media changes everyone's world lens by transmitting definitions for ourselves and others. Bailard demonstrates how Internet access defines government success within our interdependent world. Her work illustrates how Internet access accentuates both the positive and negative impressions citizens carry regarding their government. The first half of her text expresses the theory and assumptions underlying her core experiments, while the second half provides two sets of experiments through a global community and focused field tests.

Democracy's Double-Edged Sword reveals two sharp, analytic edges: *mirror-holding* and *window-opening*. Both capabilities depend on the studied society possessing Internet access. Mirror-holding describes how Internet access allows users to discern how either democratic practices or general governance functions internally to their society. Window-opening allows those same individuals to form perceptions regarding how

external governments conduct their activities. Both traits assume the Internet provides increased information volume with more diversity than any previously available media sources. Bailard relies on congruence theory illustrations to explain how democratic participants' satisfaction within their democracy can be evaluated by their perception of democracy. Without the Internet, some people may never realize the repression under which they suffer.

Bailard does identify several core limitations dulling the identified capabilities—with government censorship forming the largest item. If a government can effectively block the Internet, no amount of mirror-holding or window-opening will increase one's access or broaden one's experience. Similar factors emerge from either state-sponsored cyberwarfare branches or distributing government propaganda. Both seek to negate the effect gained by free and open access to external media. Another assumption pair addresses the economic sufficiency point where the Internet becomes widely accessible and whether mobile phones offer Internet access. Some regions still experience minimal Internet penetration, and thus, Bailard views their data transport activities as a two-step process. This process first obtains information through a personal source such as a phone viewing a web site and then disseminates through one's own social connections through talk or text. Social media and mobile phone Internet access help speed the process by decreasing the overall time required to obtain information. Finally, her last assumption considers whether too many online choices serve to dilute popular perceptions and prevent either edge from being effective. Bailard contends that some people may avoid making distinctive online choices, but enough people will examine available options to prove the suggested causal links.

One potential disagreement with Bailard's assessments occurs within the limitation chapter. Over several pages, the work contends that state-run media—for example, propaganda—must be less efficient than truthful information because producing and sustaining nonfactual data is more difficult. Bailard argues truth is easier to produce and distribute because one can more easily verify truthful sources. All state-run media is portrayed as misinformation or propaganda, which is by her definition inefficient and unwieldy. At a certain point, the scales within state-run media production may tip toward inefficiency, but historic information-warfare campaigns are usually based on at least partial truths. The current media campaigns presented within the Islamic State's propaganda or Sony Entertainment's difficulties with *The Interview* provide a significant counterpoint to the work's assumption. The ability to quickly disseminate social media through Twitter-type forums undermines the effort perceived necessary to distribute false information through cyberspace. The limitation returns to demonstrate where state-distributed or malicious propaganda reduces Internet effectiveness to mirror-holding or window-opening; it potentially prevents causal linkages.

The work evaluates two experimental methodologies with previously assessed surveys to identify whether democratic satisfaction rates correlate to Internet penetration within specified areas. The first study examines the percentage of citizens who express satisfaction in government as compared to their Internet access from 2004 to 2008. The second study examines individual responses from various countries to evaluate similar effects within a region. In both cases, nations with strong democratic prac-

tices increased satisfaction rates concurrent with their Internet penetration rates, while nations with weak democratic practices experienced less satisfaction with similarly increased penetration. Numerous statistical evaluations demonstrate the causal relationship between Internet usage and democratic satisfaction throughout the chapter. Bailard's careful analysis ties statistics to regional democratic practices. These answers lead to her next study with field research within contained environments.

Bailard controlled variability by conducting experiments on democratic satisfaction rates in Bosnia and Tanzania. In both cases, she offered free and uncontrolled Internet access for limited times, while utilizing surveys to examine satisfaction rates between a control and an experimental group. Both smaller sets of results mirrored her larger tests. One unusual result within the Tanzanian group was fewer Internet-access group members actually voted than had planned to vote during the initial survey. The link between satisfaction and Internet use remained clear; however, some smaller behavior elements were not demonstrated as directly linked. The work also notes cultural differences may be more influential directing certain behavioral elements than merely Internet access and participation within the timespan.

Bailard makes some critical initial steps about demonstrating causal linkages between Internet use and government satisfaction rates. At the same time, her work points to where more work may yet be accomplished. The growth of social media means most world crises require one to engage while facing rampant information proliferation of varying degrees of accuracy and truthfulness in order to understand potential impacts. In Operations Enduring Freedom and Iraqi Freedom, the North Atlantic Treaty Organization's Libyan operation, and current actions against the Islamic State, social media is essential in communicating messages from, within, and across all sides. Bailard's work helps operators understand the causal links between various factors. At 162 pages, it is a quick read and highlights some essential information operations elements, and every strategist should add the work to their reading list.

Lt Col Mark Peters, USAF

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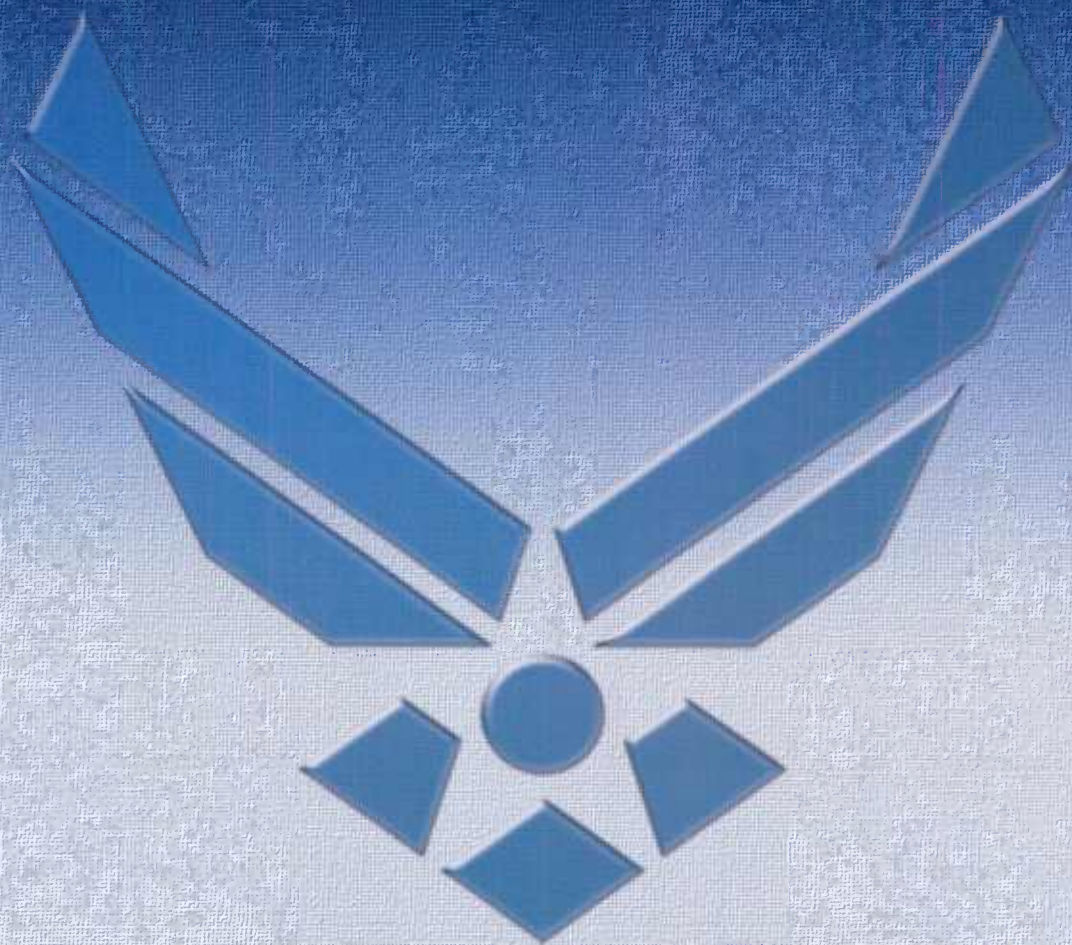
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